American Gas Association

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Gas Facts

1982 • A Statistical Record of the Gas Utility Industry

Department of Statistics

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1982 DATA

■ ENERGY RESERVES ■ NATURAL GAS SUPPLY
■ UNDERGROUND STORAGE
■ DISTRIBUTION AND TRANSMISSION
■ ENERGY CONSUMPTION
■ CUSTOMERS ■ SALES ■ REVENUES
■ PRICES ■ APPLIANCE AND HOUSING DATA
■ FINANCE ■ PERSONNEL DATA

■ GLOSSARY ■ INDEX

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GAS FACTS
1982 DATA

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AMERICAN GAS ASSOCIATION

The American Gas Association assumed its present status as the gas utility industry trade association in 1927, after a merger of two predecessor organizations. It renders assistance to the gas utility industry so that the industry may serve its customers more efficiently. Dependence is placed upon the voluntary cooperation of gas companies and established committees composed of representatives from these companies.

The Association recognizes the need for factual information regarding the gas industry for the use, not only of industry organizations, but also interested outside publics. Its statistical efforts are a vital part of this function, and the publication of *Gas Facts* is one result of these efforts. The statistical activities of A.G.A. are performed by the Department of Statistics with guidance provided by the Statistics and Related Economics Committee.

1983-84
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*For those unfamiliar with the gas industry energy equivalents, unit conversions are given here.

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INTRODUCTION

GENERAL

This publication contains detailed statistics for 1982 and summary statistics for 1960-1981 for the gas utility industry which by definition, consists of the companies engaged in natural gas distribution and transmission. The publication also contains relevant data on the gas producing segment of the industry and key statistics on other energy industries.

Production data of the gas industry, and pertinent other energy industry data, are also included. Gas volumes are expressed in millions of cubic feet and in British thermal units (Btu) to permit direct comparison with other energy data. A conversion table is included as Appendix B.

Appendix C contains a sample listing of gas utility companies according to their classification as distribution, transmission, integrated, or in some cases, combination companies. These classifications are defined in the glossary, Appendix A. Appendix D, which is a new section, contains consumption data gathered by the Gas Requirements Committee.

This edition of *Gas Facts* has been reformatted to help improve consistency and presentation of data. During this "transition" year, the user may have to rely on the index and table of contents to a greater extent to determine where information is presented.

SOURCES OF INFORMATION

Most of the statistical information contained in this volume is developed from data contained in the Uniform Statistical Report, a detailed information form prepared annually both by electric and gas utility companies. Information is also derived from reports filed with regulatory commissions, from financial publications, and from statistical reports prepared by government and private agencies. For 1982, the gas utility companies participating in the Uniform Statistical Report survey represented 92 percent of total gas utility industry sales. Data for non-reporting companies, whose sales represent the remaining 8 percent, were estimated based on recent historical experience.

Employee accident data were taken from the A.G.A. *Disabling Injury Experience of the Gas Utility Industry* report. Estimates of proved reserves of natural gas, natural gas liquids and petroleum were taken from the U.S. Department of Energy report *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1982 annual report. Since this time series only begins in 1977, A.G.A., API and CPA data on natural gas reserves, 1960-1979, are presented. Statistics on underground storage operations were developed by the A.G.A. Committee on Underground Storage. Data for gas spaceheating customers were taken from the A.G.A. *Gas Househeating Survey*. Data on new security issues, as well as related cost and yield data, were derived from various financial publications, supplemented by data provided in the Uniform Statistical Report.

ACKNOWLEDGEMENTS

Our thanks go to those companies participating in the Uniform Statistical Report information gathering effort. Their cooperation and support are the essential elements which have made this publication a primary source of gas utility industry data, and an important industry reference. The cooperation of the public and governmental agencies credited in tables is also greatly appreciated.

Credit also goes to Senior Energy Statistician Margaret Davis, Energy Statisticians Carl Pascale and Tina Murphy and Summer Intern Richard Carson. Also contributing to the effort were the A.G.A. Computer Services and Publications/Graphic Services Departments; Bob Kalisch—Director, Gas Supply and Statistics; and Patrick Curley—Manager, Statistical Services.

SECTION 1
1982 IN REVIEW

1982 statistics follow similar trends to those established in 1980; supplies continue to be adequate and in excess of demand while decreases in demand caused gas utility sales to drop.

Reserve additions were 99 percent of gas production in 1982 so that the total reserves were essentially unchanged at a level of 202 Tcf. Gas well drilling continued at record levels, with 18,953 wells completed in 1982, up 5.9% over 1981. Both of these statistics were key factors in supply side improvements.

Distribution and transmission facilities increased to 1,083 thousand miles of distribution main and pipeline, and storage capacity increased to almost 7.7 Tcf. Thus the gas utility industry's deliverability capability has continued to improve.

1982 consumption of total energy in the United States declined 4.0% from 1981 with natural gas consumption decreasing 7.1%. Conservation continues to play an important role in natural gas consumption. The average residential consumption per customer of natural gas was 107.1 million Btus, a slight increase over 1981, but still the lowest level since 1962.

Gas utility industry sales decreased 7.1 percent in 1982 to 14,280.5 trillion Btus. Residential and commercial sales increased 3.5 and 4.0 percent, respectively, over 1981, while industrial sales decreased 16.4%.

The natural gas price to end-users rose 21.6 percent in 1982 to an average of $4.44 per million Btus. Wellhead and city gate prices rose 22.6 and 24.7 percent respectively. The average residential price rose to $4.97 per million Btus, compared to $18.90 for electricity and $8.70 for number 2 fuel oil. The increases in residential prices were 19.4 percent for natural gas, 11.2 percent for electricity, while number 2 fuel oil decreased 2.8 percent.

1982 IN REVIEW

CHART 1-1

SELECTED GAS INDUSTRY HIGHLIGHTS OF 1982

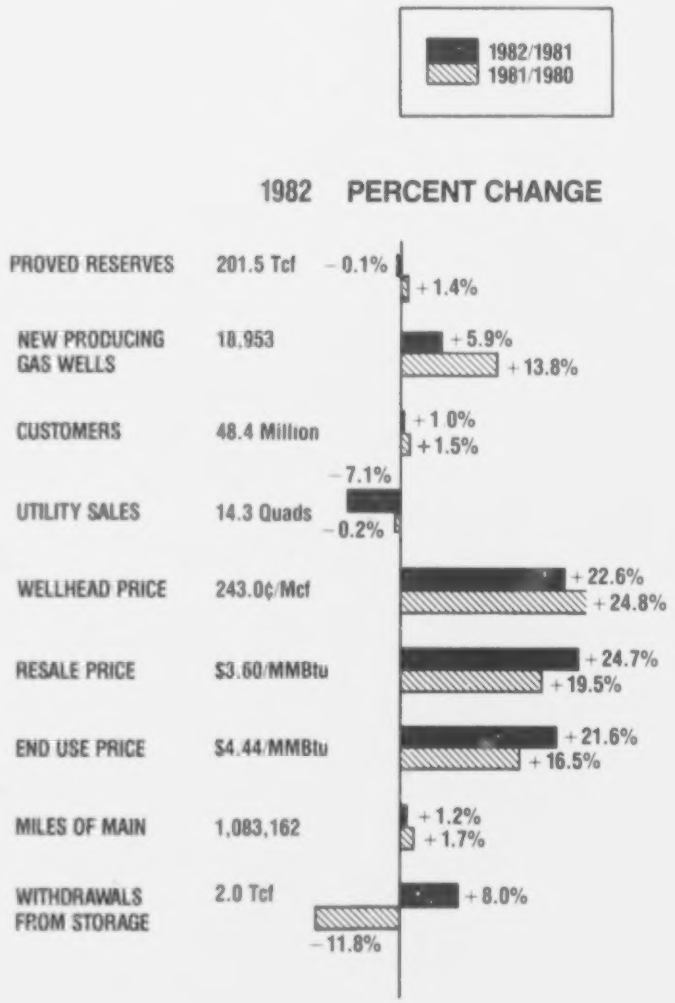


TABLE 1-1

Comparison of Gas Utility Industry Customers, Sales, and Revenues By Class of Service, 1982 and 1981

(SALES QUANTITIES IN BILLIONS OF BTU, REVENUES IN THOUSANDS OF DOLLARS)

	1981	1982	PERCENTAGE CHANGE
CUSTOMERS—TOTAL*	**47,947,500**	**48,417,100**	**+ 1.0**
RESIDENTIAL	44,149,300	44,554,300	+ 0.9
COMMERCIAL	3,564,500	3,631,000	+ 1.9
INDUSTRIAL	187,200	186,100	− 0.6
OTHER	46,500	45,700	− 1.5
SALES—TOTAL	**15,374,800**	**14,280,500**	**− 7.1**
RESIDENTIAL	4,609,700	4,770,000	+ 3.5
COMMERCIAL	2,375,400	2,471,300	+ 4.0
INDUSTRIAL	8,239,300	6,891,600	− 16.4
OTHER	150,400	147,600	− 1.9
REVENUES—TOTAL	**56,109,786**	**63,390,683**	**+ 13.0**
RESIDENTIAL	19,180,238	23,700,680	+ 23.6
COMMERCIAL	9,285,550	11,666,104	+ 25.6
INDUSTRIAL	27,123,862	27,388,986	+ 1.0
OTHER	520,136	634,913	+ 22.1

*YEARLY AVERAGES

SECTION 2
ENERGY RESERVES

Prior to 1980, data on reserves of oil, natural gas and gas liquids were taken from *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada*, an annual report published jointly by A.G.A., the American Petroleum Institute (API) and the Canadian Petroleum Association (CPA). The publication of this report was discontinued after the year-end 1979 report was released in June, 1980. Since 1977 however, the Energy Information Administration (EIA) within the Department of Energy has published an annual reserves report. Data listed below and in several of the tables in this section were taken from the EIA series. For years prior to 1980 A.G.A./API/CPA data is also listed for natural gas reserves.

Reserves as of December 31

	1982	% Change 82/81
Natural Gas		
(Billions of cubic feet)		
Total	201,512	− 0.1
% Non-Associated, estimated	70.3	− 0.4
% Associated-Dissolved, estimated	29.7	+ 1.0
Underground Storage*	5,526	+ 5.7
Gross Additions	17,288	−19.4
Production	17,506	− 6.6
Natural Gas Liquids		
(Millions of barrels)		
Total	7,221	+ 2.2
Gross Additions	874	−19.1
Production	721	− 2.7
Crude Oil		
(Millions of barrels)		
Total	27,858	− 5.3
New Additions	1,382	−46.2
Production	2,950	+ 0.0

*Not included in Total Reserves. Data taken from "The Underground Storage of Gas in the United States and Canada".

TABLE 2-1
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS IN THE UNITED STATES, 1960-1979[a]

(Millions of cubic feet)

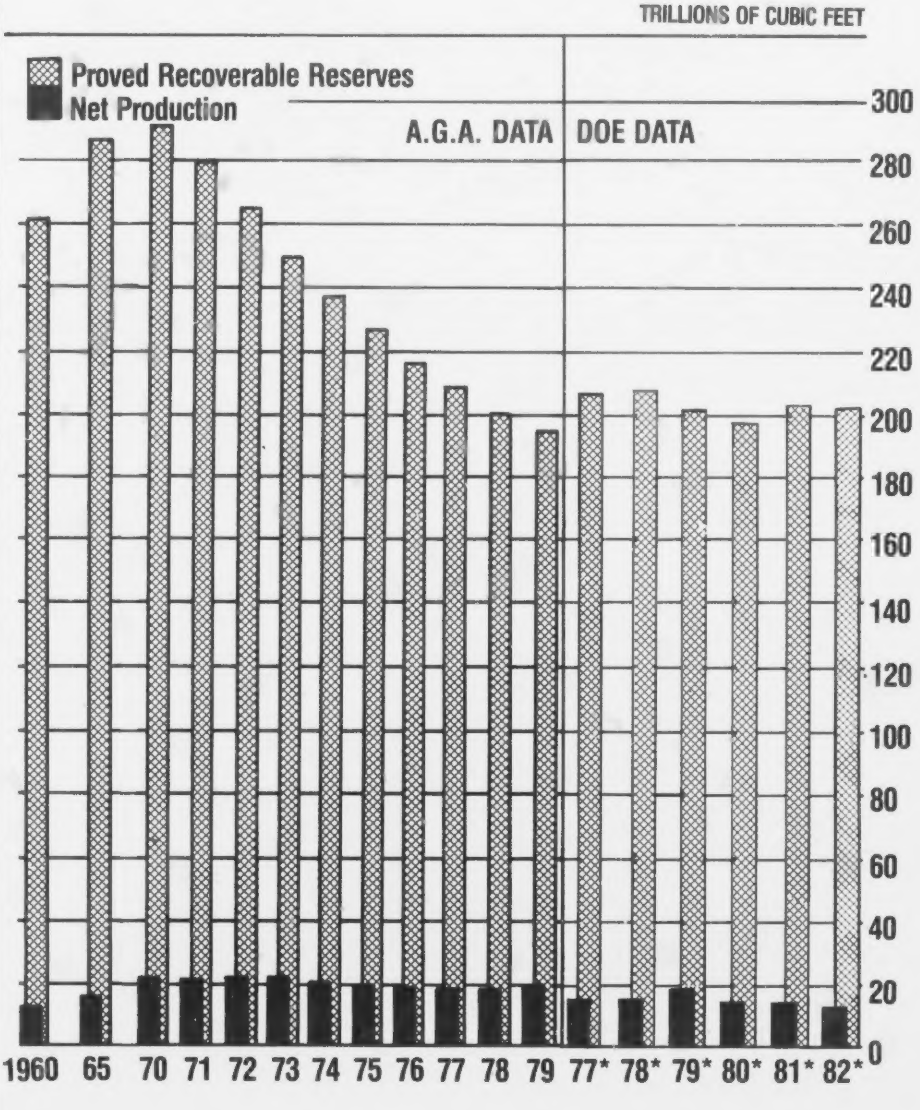
	Changes in Reserves during year										
Year	Extensions	Extensions and Revisions	Revisions	New Field Discoveries	Discoveries of New Fields and New Pools in Old Fields	New Reservoir Discoveries	Total of Discoveries, Revisions and Extensions	Net Change in Underground Storage	Preliminary Net Production during Year[c]	Estimated Proved Reserves as of End of Year	Change over Previous Year
1960	—	7,293,015	—	—	6,600,963	—	13,893,978	281,273	13,019,356	262,326,326	1,155,895
1961	—	10,258,692	—	—	6,907,729	—	17,166,421	159,544	13,378,649	266,273,642	3,947,316
1962	—	13,184,794	—	—	6,299,164	—	19,483,958	159,231	13,637,973	272,278,858	6,005,216
1963	—	12,586,733	—	—	5,577,934	—	18,164,667	253,733	14,546,025	276,151,233	3,872,375
1964	—	13,342,838	—	—	6,909,301	—	20,252,139	195,110	15,347,028	281,251,454	5,100,221
1965	—	14,775,570	—	—	6,543,709	—	21,319,279	150,483	16,252,293	286,468,923	5,217,469
1966	9,224,745	—	4,937,962	2,947,329	—	3,110,396	20,220,432	134,523	17,491,073	289,332,805	2,863,882
1967	9,538,584	—	6,570,578	3,170,520	—	2,524,651	21,804,333	151,403	18,380,838	292,907,703	3,574,898
1968	7,758,821	—	3,016,146	1,376,429	—	1,545,612	13,697,008	118,569	19,373,428	287,349,852	(5,557,851)
1969	5,800,489	—	(1,238,261)	1,769,557	—	2,043,219	8,375,004	107,169	20,723,190	275,108,835	(12,241,017)
1970	6,158,168	—	(99,721)	27,770,223[b]	—	3,367,689	37,196,359	402,018	21,960,804	290,746,408	15,637,573
1971	6,374,706	—	(1,227,400)	1,317,574	—	3,360,541	9,825,421	310,301	22,076,512	278,805,618	(11,940,790)
1972	6,153,683	—	(1,077,791)	1,462,539	—	3,096,132	9,634,563	156,563	22,511,898	266,084,846	(12,720,772)
1973	6,177,286	—	(3,474,756)	2,152,151	—	1,970,368	6,825,049	(354,282)	22,605,406	249,950,207	(16,134,639)
1974	5,847,251	—	(1,333,285)	2,013,745	—	2,151,473	8,679,184	(178,424)	21,318,470	237,132,497	(12,817,410)
1975	6,027,433	—	383,449	2,423,382	—	1,649,424	10,483,688	302,561	19,718,570	228,200,176	(8,932,321)
1976	5,337,707	—	(1,197,119)	1,421,013	—	1,993,867	7,555,468	(187,550)	19,542,020	216,026,074	(12,174,102)
1977	6,601,229	—	983,551	2,114,505	—	2,152,639	11,851,924	446,930	19,447,050	208,877,878	(7,148,196)
1978	6,733,441	—	118,436	1,719,938	—	2,014,329	10,586,144	148,733	19,311,048	200,301,707	(8,576,171)
1979	7,113,113	—	2,907,551	2,575,779	—	1,689,504	14,285,947	239,323	19,910,353	194,916,624	(5,385,083)

a. Volumes are calculated at a pressure base of 14.73 psi, absolute, and at a standard temperature of 60°F.
b. Includes the estimates of proved reserves in the Prudhoe Bay Permo-triassic reservoir discovered in 1968 and not previously included.
c. "Preliminary Net Production" equals estimated gross withdrawals less (1) gas reinjected into producing reservoirs for cycling and pressure maintenance, and (2) natural gas liquids. "Preliminary Net Production" differs from U.S. Bureau of Mines "Marketed Production" in that (1) the sources from which they are derived are different, and (2) "Marketed Production" includes natural gas liquids.
( ): Denotes negative volume.

Source: A.G.A., American Petroleum Institute and Canadian Petroleum Association. *Reserves of Crude Oil, Natural Gas Liquids and Natural Gas in the United States and Canada as of December 31, 1979*
Note: Publication of the above mentioned source ceased with the December 31, 1979 edition. See Table 2-2 for EIA information covering 1976-1982.

CHART 2-1

PROVED RECOVERABLE RESERVES & NET PRODUCTION OF NATURAL GAS IN THE UNITED STATES



REFERENCE: TABLES 2-1, 2-2, 2-3

*DOE data. See explanation on page 5.

TABLE 2-2
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS IN THE UNITED STATES, 1976-1982[a]

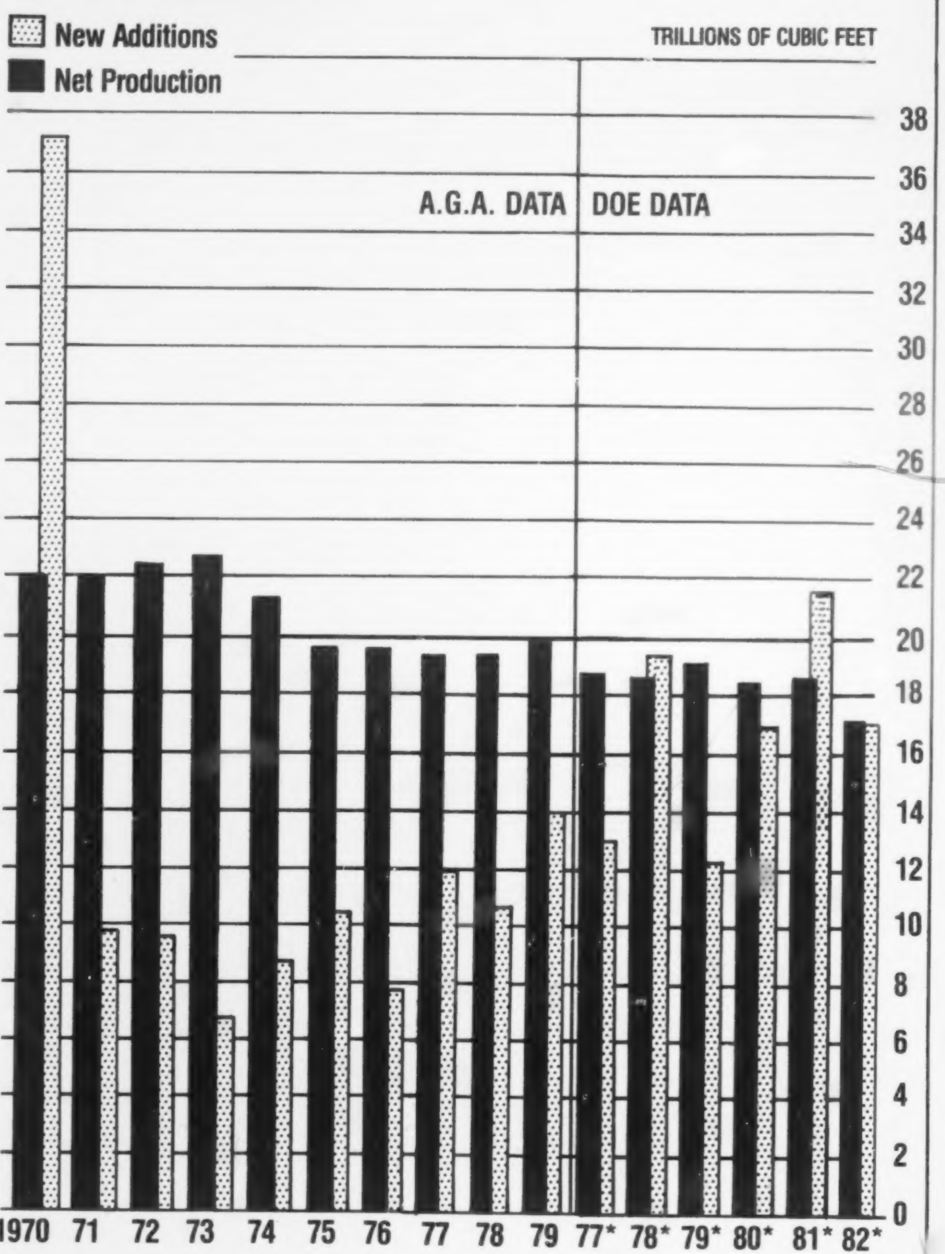
(Billions of Cubic Feet)

	Changes in Reserves During Year									
Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production Dry (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1976	—	—	—	—	—	—	—	—	213,278[e]	—
1977	(20)[d]	13,691	15,296	8,129	3,301	3,173	14,603	18,843	207,413	(5,865)
1978	2,429	14,969	15,994	9,582	4,579	3,860	18,021	18,805	208,033	620
1979	(2,264)	16,410	16,629	8,950	2,566	3,188	14,704	19,257	200,997	(7,036)
1980	1,201	16,972	15,923	9,357	2,577	2,539	14,473	18,699	199,021	(1,976)
1981	1,627	16,412	13,813	10,491	2,998	3,731	17,220	18,737	201,730	2,709
1982	2,378	19,795	19,340	8,349	3,419	2,687	14,455	17,506	201,512	(218)

a. Volumes are calculated at a pressure base of 14.73 psi. absolute and at a standard temperature of 60°F.
b. Col. 4 + Col. 5 + Col. 6 = Col. 7.
c. Proved reserves = Prior year Col. 9 + Col. 1 + Col. 2 − Col. 3 + Col. 7 − Col. 8.
d. Consists only of reported corrections.
e. Based on following year data only.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration. *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1982 Annual Report.

CHART 2-2

NET PRODUCTION AND NEW ADDITIONS TO GAS RESERVES



REFERENCE: TABLE 2-1, 2-2

*DOE data. See explanation on page 5.

TABLE 2-3
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS, IN THE UNITED STATES BY STATE, DURING 1982[a]

(Billions of Cubic Feet)

State and Subdivision	Published Proved Reserves 12/31/81	Changes in Reserves During 1982: Net of Corrections and Adjustments	Changes in Reserves During 1982: Revision Increases	Changes in Reserves During 1982: Revision Decreases
(1) Total United States	**201,730**	**2,378**	**19,795**	**19,340**
(2) Alabama Onshore	648	(29)	130	46
(3) Alaska	33,037	11	2,225	22
(4) Arkansas	1,801	93	87	116
(5) California	5,617	(53)	286	370
(6) Coastal Region Onshore	306	41	38	28
(7) Los Angeles Basin Onshore	154	(57)	17	5
(8) San Joaquin Basin Onshore	4,163	(31)	178	248
(9) State & Federal Offshore	994	(6)	53	89
(10) Colorado	2,961	393	322	370
(11) Florida	69	5	10	0
(12) Kansas	9,860	82	389	259
(13) Kentucky	530	(4)	54	19
(14) Louisiana[b]	47,377	358	5,620	6,347
(15) North	3,270	15	217	438
(16) South Onshore	12,645	(127)	1,531	1,795
(17) South Offshore[b]	31,462	470	3,872	4,114
(18) Michigan	1,118	23	146	144
(19) Mississippi	2,035	24	226	372
(20) Montana	1,321[d]	(448)	72	95
(21) New Mexico	13,870	(779)	711	1,013
(22) East	3,598	15	458	521
(23) West	10,272	(794)	253	492
(24) New York	264[d]	(43)	4	7
(25) North Dakota	581	(1)	47	56
(26) Ohio	965	268	32	55
(27) Oklahoma	14,699	897	2,374	2,520
(28) Pennsylvania	1,264[d]	60	125	56
(29) Texas	50,469	887	6,050	6,614
(30) District 1	1,022[d]	(143)	112	73
(31) District 2 Onshore	2,629	(79)	371	397
(32) District 3 Onshore	5,292	315	623	1,097
(33) District 4 Onshore	8,004	161	1,062	1,234
(34) District 5	1,250	(66)	155	114
(35) District 6	4,177	139	401	500
(36) District 7B	804	93	62	51
(37) District 7C	2,503	64	296	230
(38) District 8	8,546	(180)	945	567
(39) District 8A	1,071	50	73	54
(40) District 9	953	177	118	115
(41) District 10	6,229	381	586	547
(42) State Offshore	1,111	48	243	204
(43) Federal Offshore	6,878	(73)	1,003	1,431
(44) Utah	1,912	307	55	99
(45) Virginia	118	2	4	7
(46) West Virginia	1,834	313	183	184
(47) Wyoming	9,307	10	632	546
(48) Miscellaneous[c]	73	8	11	23

a. Volumes are calculated at a pressure base 14.73 psi, absolute, and at a standard temperature of 60°F.
b. Includes offshore Alabama.
c. Includes Arizona, Illinois, Indiana, Maryland, Nebraska, Oregon, South Dakota, Tennessee, and Washington.
d. Indicates that the estimate is associated with a sampling error (95 percent confidence interval) which exceeds 20 percent of the estimated value.

Note: "Old" means discovered in a prior year. "New" means discovered during the report year.

Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1982 Annual Report.

TABLE 2-3 (Continued)

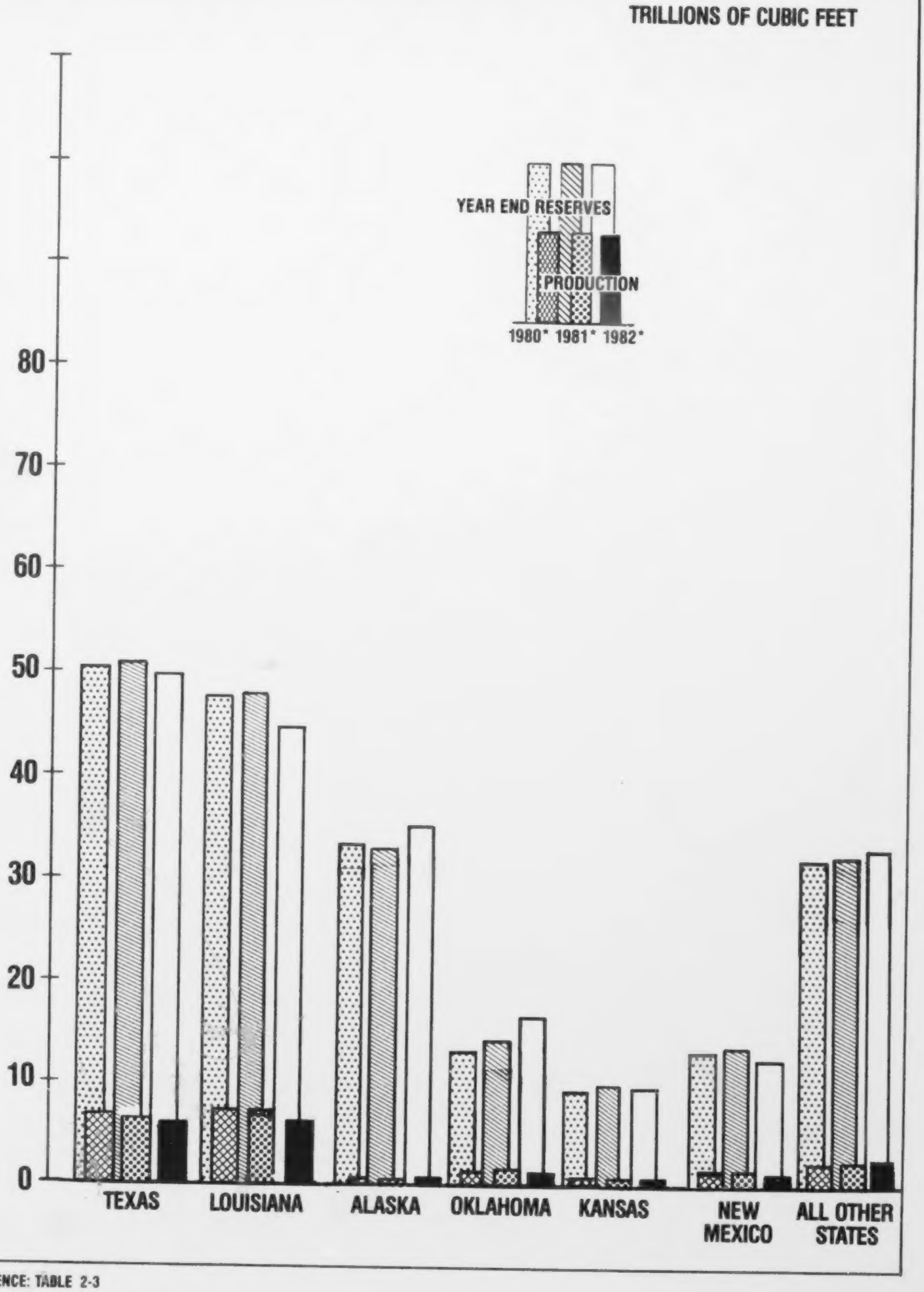
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS, IN THE UNITED STATES BY STATE, DURING 1982[a]

(Billions of Cubic Feet)

Changes in Reserves During 1982					
Extensions	New Field Discoveries	New Reservoir Discoveries in Old Fields	Production	Proved Reserves 12/31/82	
8,349	**2,687**	**3,419**	**17,506**	**201,512**	**(1)**
13	9	3	80	648	(2)
0	0	0	261	34,990	(3)
220	7	24	158	1,958	(4)
300	23	105	356	5,552	(5)
27	1	11	34	362	(6)
0	0	0	13	96	(7)
102	22	5	290	3,901	(8)
171	0	89	19	1,193	(9)
171	20	13	196	3,314	(10)
0	0	0	20	64	(11)
77	8	7	440	9,724	(12)
33	0	1	44	551	(13)
1,516	894	1,601	6,103	44,916	(14)
160	10	14	336	2,912	(15)
534	154	331	1,472	11,801	(16)
822	730	1,256	4,295	30,203	(17)
53	16	5	133	1,084	(18)
42	15	24	198	1,796	(19)
33	3	6	45	847	(20)
468	68	35	942	12,418	(21)
284	65	31	498	3,432	(22)
184	3	4	444	8,986	(23)
18	2	0	9	229	(24)
60	44	5	51	629	(25)
24	0	6	99	1,141	(26)
1,815	376	208	1,636	16,207	(27)
111	13	14	102	1,429	(28)
2,636	1,074	1,261	6,006	49,757	(29)
57	11	6	100	892	(30)
199	75	69	374	2,493	(31)
329	31	45	782	4,756	(32)
417	315	654	969	8,410	(33)
188	22	2	129	1,308	(34)
411	23	56	381	4,326	(35)
9	0	1	113	805	(36)
177	106	4	261	2,659	(37)
231	19	34	832	8,196	(38)
6	0	0	105	1,041	(39)
93	6	20	149[d]	1,103[d]	(40)
245	30	20	734	6,210	(41)
42	29	18	222	1,065	(42)
232	407	332	855	6,493	(43)
60	11	2	87	2,161	(44)
11	0	0	6	122	(45)
74	19	45	136	2,148	(46)
614	85	47	391	9,758	(47)
0	0	7	7	69	(48)

CHART 2-3

NATURAL GAS STATE RESERVES AND PRODUCTION FOR 1980, 1981 AND 1982



REFERENCE: TABLE 2-3

*DOE data. See explanation on page 5.

TABLE 2-4

SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS LIQUIDS IN THE UNITED STATES, 1978-1982

(Millions of barrels)[a]

Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1978	—	—	—	—	—	—	—	—	6,772[e]	—
1979	64[d]	677	726	364	97	94	555	727	6,615	(157)
1980	153	743	639	418	79	90	587	731	6,728	113
1981	231	729	643	542	91	131	764	741	7,068	340
1982	299	811	832	375	109	112	596	721	7,221	153

a. Barrel = 42 U.S. gallons.
b. Col. 4 + Col. 5 + Col. 6 = Col. 7.
c. Proved Reserves = Prior year Col. 9 + Col. 1 + Col. 2 − Col. 3 + Col. 7 − Col. 8.
d. Consists only of reported corrections.
e. Based on following year data only.

Note: "Old" means discovered in a prior year. "New" means discovered during the report year.

Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1982 Annual Report.

TABLE 2-5
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS, IN THE UNITED STATES BY STATE, DURING 1982

(Millions of barrels)[a]

State and Subdivision	Published Proved Reserves 12/31/81	Changes in Reserves During 1982: Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1) **Total United States**	**7,068**	**299**	**811**	**832**
(2) Alabama	192	6	24	17
(3) Alaska	10	(1)	0	0
(4) Arkansas	16	(2)	2	2
(5) California	82	79	8	10
(6) Coastal Region Onshore	14	2	2	1
(7) Los Angeles Basin Onshore	6	0	1	0
(8) San Joaquin Basin Onshore	57	75	5	8
(9) State & Federal Offshore	5	2	0	1
(10) Colorado	204	(17)	19	21
(11) Florida	20	(1)	3	0
(12) Kansas	409	(99)	13	9
(13) Kentucky	25	9	3	1
(14) Louisiana	1,327	21	184	211
(15) North	99	8	6	21
(16) South Onshore	544	(10)	69	86
(17) South Offshore	684	23	109	104
(18) Michigan	102	4	13	15
(19) Mississippi	18	1	4	4
(20) Montana	11	7	2	2
(21) New Mexico	560	0	42	57
(22) East	214	5	28	33
(23) West	346	(5)	14	24
(24) North Dakota	68	(3)	5	7
(25) Oklahoma	631	85	115	122
(26) Texas	2,646	220	324	308
(27) District 1	26	3	4	2
(28) District 2 Onshore	88	(18)	15	11
(29) District 3 Onshore	230	73	41	59
(30) District 4 Onshore	260	20	43	46
(31) District 5	49	(2)	6	5
(32) District 6	308	(31)	29	34
(33) District 7B	102	15	8	6
(34) District 7C	186	7	24	18
(35) District 8	537	68	66	42
(36) District 8A	335	(17)	21	15
(37) District 9	86	36	14	13
(38) District 10	364	52	37	36
(39) State Offshore	13	8	3	4
(40) Federal Offshore	62	6	13	17
(41) Utah and Wyoming	661	(5)	42	39
(42) West Virginia	85	(7)	7	7
(43) Miscellaneous[b]	1	2	1	0

[a] Barrel = 42 U.S. gallons.

[b] Includes Illinois, Indiana, Nebraska, New York, Ohio, Pennsylvania, and Tennessee.

Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1982 Annual Report.

TABLE 2-5 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS, IN THE UNITED STATES BY STATE, DURING 1982

(Millions of barrels)[a]

Changes in Reserves during 1982						
Extensions	New Field Discoveries	New Reservoir Discoveries in Old Fields	Production	Proved Reserves 12/31/82	Plant Liquids Production	
375	**112**	**109**	**721**	**7,221**	**564**	(1)
2	2	0	16	193	4	(2)
0	0	0	0	9	0	(3)
2	0	0	1	15	1	(4)
4	1	2	12	154	12	(5)
1	0	0	2	16	2	(6)
0	0	0	1	6	1	(7)
3	1	0	9	124	9	(8)
0	0	2	0	8	0	(9)
10	1	1	11	186	10	(10)
0	0	0	5	17	5	(11)
2	0	0	14	302	14	(12)
2	0	0	3	35	3	(13)
48	40	51	165	1,295	96	(14)
4	0	0	11	85	7	(15)
22	9	17	64	501	32	(16)
22	31	34	90	709	57	(17)
4	1	0	12	97	11	(18)
1	0	1	3	18	1	(19)
1	0	0	1	18	1	(20)
25	5	2	46	531	42	(21)
18	5	2	30	209	28	(22)
7	0	0	16	322	14	(23)
7	6	0	5	71	4	(24)
85	18	10	77	745	67	(25)
142	31	38	322	2,771	273	(26)
2	0	0	4	29	3	(27)
8	3	2	12	75	8	(28)
21	1	3	45	265	35	(29)
15	9	20	32	289	23	(30)
8	2	0	5	53	4	(31)
26	2	3	25	278	20	(32)
1	0	0	15	105	14	(33)
13	7	0	20	199	18	(34)
16	1	2	60	588	56	(35)
2	0	0	30	296	30	(36)
9	1	2	16	119	15	(37)
17	2	1	46	391	44	(38)
1	0	0	3	18	1	(39)
3	3	5	9	66	2	(40)
37	6	2	23	681	15	(41)
3	1	2	5	79	5	(42)
0	0	0	0	4	0	(43)

TABLE 2-6
TOTAL ESTIMATED REMAINING IDENTIFIED RESERVES OF COAL AND LIGNITE BY STATE, AS OF JANUARY 1, 1980[a]

(Billions of short tons)

State	Total Coal and Lignite	Coal			Lignite
		Anthracite and Semianthracite	Subbituminous	Bituminous	
United States	**472.7**	**7.3**	**182.0**	**239.3**	**44.1**
Alabama	5.0			3.9	1.1
Alaska	6.1		5.4	.7	b
Arizona	.4			.4	
Arkansas	.4	.1		.3	b
Colorado	17.3	b	4.0	9.1	4.2
Georgia	b			b	
Idaho	b			b	
Illinois	67.6			67.6	
Indiana	10.6			10.6	
Iowa	2.2			2.2	
Kansas	1.0			1.0	
Kentucky	34.0			34.0	
Maryland	.8			.8	
Michigan	.1			.1	
Missouri	6.1			6.1	
Montana	120.4		103.3	1.4	15.7
New Mexico	4.5	b	2.7	1.8	
North Carolina	b			b	
North Dakota	10.0				10.0
Ohio	19.1			19.1	
Oklahoma	1.6			1.6	
Oregon	b		b		
Pennsylvania	30.3	7.1		23.2	
South Dakota	.4				.4
Tennessee	1.0			1.0	
Texas	12.7				12.7
Utah	6.5		b	6.5	
Virginia	3.4	.1		3.3	
Washington	1.5		1.2	.3	b
West Virginia	39.8			39.8	
Wyoming	69.9		65.4	4.5	

a. Figures are for resources in the ground, about half of which may be considered recoverable. Includes beds of bituminous coal and anthracite 28 in. or more thick and beds of subbituminous coal and lignite 5 ft. or more thick.
b. Less than 50 million short tons.
Source: U.S. Department of the Interior, Bureau of Mines, *The Demonstrated Reserve Base of Coals in the United States*, January 1, 1980.

TABLE 2-7

SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF CRUDE OIL IN THE UNITED STATES, 1976–1982

(Millions of barrels)[a]

Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1976	—	—	—	—	—	—	—	—	33,502[e]	—
1977	(40)[d]	1,503	1,117	496	130	168	794	2,862	31,780	(1,722)
1978	366	2,799	1,409	444	116	267	827	3,008	31,355	(425)
1979	337	2,438	2,001	424	104	108	636	2,955	29,810	(1,545)
1980	219	2,883	994	572	147	143	862	2,975	29,805	(5)
1981	138	2,151	880	750	157	254	1,161	2,949	29,426	(379)
1982	(83)	2,245	1,811	634	193	204	1,031	2,950	27,858	(1,568)

a. Barrel = 42 U.S. gallons.
b. Col. 4 + Col. 5 + Col. 6 = Col. 7.
c. Proved Reserves = Prior year Col. 9 + Col. 1 + Col. 2 − Col. 3 + Col. 7 − Col. 8.
d. Consists only of reported corrections.
e. Based on following year data only.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1982 Annual Report.

TABLE 2-8

CHANGES IN ESTIMATED PROVED RESERVES OF CRUDE OIL, IN THE UNITED STATES BY STATE, DURING 1982

(Millions of barrels)[a]

			Changes in Reserves during 1982		
	State and Subdivision	Published Proved Reserves 12/31/81	Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1)	**Total United States**	**29,426**	**(83)**	**2,245**	**1,811**
(2)	Alabama	55	0	3	1
(3)	Alaska	8,283	(1)	99	349
(4)	Arkansas	113	2	15	8
(5)	California	5,441	(26)	314	198
(6)	Coastal Region Onshore	621	(19)	79	72
(7)	Los Angeles Basin Onshore	412	(18)	41	20
(8)	San Joaquin Basin Onshore	3,225	10	146	80
(9)	State and Federal Offshore	1,183	1	48	26
(10)	Colorado	147	3	49	10
(11)	Florida	109	1	12	1
(12)	Illinois	129	16	27	6
(13)	Indiana	23	8	1	0
(14)	Kansas	371	7	63	35
(15)	Kentucky	29[c]	9	4	5
(16)	Louisiana	2,985	(64)	405	454
(17)	North	317[c]	(57)	20	26
(18)	South Onshore	642	(1)	68	59
(19)	South State Offshore	162	1	14	13
(20)	South Federal Offshore	1,864	(7)	303	356
(21)	Michigan	240[c]	62	42	19
(22)	Mississippi	209	11	33	11
(23)	Montana	186	(2)	62	14
(24)	Nebraska	41	(3)	3	4
(25)	New Mexico	555	23	65	30
(26)	East	522	23	61	21
(27)	West	33[c]	0	4	9
(28)	North Dakota	223	3	30	26
(29)	Ohio	112[c]	18	2	9
(30)	Oklahoma	950	50	156	101
(31)	Pennsylvania	32	1	11	5
(32)	Texas	8,093	(85)	692	452
(33)	District 1	127	(22)	45	15
(34)	District 2 Onshore	229	4	25	18
(35)	District 3 Onshore	552	49	57	87
(36)	District 4 Onshore	97	(3)	21	13
(37)	District 5	49	3	2	3
(38)	District 6	1,040	(20)	19	17
(39)	District 7B	254	(32)	24	28
(40)	District 7C	230	9	34	30
(41)	District 8	2,503	(73)	121	84
(42)	District 8A	2,538	(13)	277	106
(43)	District 9	225	(24)	44	13
(44)	District 10	107	17	11	14
(45)	State Offshore	10	(1)	1	1
(46)	Federal Offshore	132	21	11	23
(47)	Utah	190	2	9	13
(48)	West Virginia	30	6	16	3
(49)	Wyoming	840	4	131	52
(50)	Miscellaneous[b]	40	(4)	1	5

a. Barrel = 42 U.S. gallons.

b. Includes Arizona, Missouri, Nevada, New York, South Dakota, Tennessee, and Virginia.

c. Indicates that the estimate is associated with a sampling error (95 percent confidence interval) which exceeds 20 percent of the estimated value.

Note: "Old" means discovered in a prior year. "New" means discovered in the report year.

Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1982 Annual Report.

TABLE 2-8 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF CRUDE OIL, IN THE UNITED STATES BY STATE, DURING 1982

(Millions of barrels)[a]

Changes in Reserves during 1982					
Extensions	New Field Discoveries	New Reservoir Discoveries in Old Fields	Production	Proved Reserves 12/31/82	
634	**204**	**193**	**2,950**	**27,858**	(1)
1	3	0	7	54	(2)
1	0	0	627	7,406	(3)
1	0	0	16	107	(4)
122	64	82	394	5,405	(5)
8	1	4	42	580	(6)
2	0	0	47	370	(7)
18	0	0	238	3,081	(8)
94	63	78	67	1,374	(9)
6	2	2	30	169	(10)
0	2	0	26	97	(11)
4	0	1	21	150	(12)
0	0	0	4	28	(13)
26	7	2	63	378	(14)
1	0	3	5^c	36^c	(15)
120	56	68	388	2,728	(16)
9	2	3	28	240^c	(17)
28	28	4	99	611	(18)
0	0	2	20	146	(19)
83	26	59	241	1,731	(20)
9	3	0	29	184	(21)
7	2	2	30	223	(22)
6	9	1	32	216	(23)
0	0	0	5^c	32^c	(24)
17	1	1	69	563	(25)
16	0	1	65	537	(26)
1	1	0	4^c	26	(27)
34	15	2	44	237	(28)
1	0	0	13	111^c	(29)
43	4	7	138	971	(30)
1	0	0	3	37	(31)
188	27	19	866	7,616	(32)
7	7	1	21	129	(33)
1	0	1	36	206	(34)
35	3	2	102	509	(35)
3	0	1	19	87	(36)
1	0	0	7	45	(37)
12	0	2	89	947	(38)
7	1	1	28	199	(39)
17	1	0	32	229	(40)
57	3	4	219	2,312	(41)
27	2	1	245	2,481	(42)
12	9	2	36	219	(43)
9	0	0	18	112	(44)
0	1	1	1	10	(45)
0	0	3	13	131	(46)
5	3	1	24	173	(47)
2	0	0	3^c	48	(48)
35	6	2	110	856	(49)
4	0	0	3	33	(50)

TABLE 2-9

SUMMARY OF ANNUAL ESTIMATES OF RESERVES OF NATURAL GAS IN CANADA, 1964-1982[a]

(Millions of cubic feet)

	Reserves Remaining at Beginning of Year	Changes Due To						Reserves Remaining at End of Year	Change During Year	Probable Remaining at End of Year[b]
		Revisions	Revisions and Extensions	Extensions	Discoveries	Net Change in Underground Storage	Net Production			
MARKETABLE GAS[c]										
1964	32,992,252	—	—	—	—	—	—	39,319,544	6,327,292	45,572,431
1965	39,319,544	—	—	—	—	—	—	40,354,527	1,034,983	46,434,950
1966	40,354,527	2,158,536	—	1,532,317	512,086	17,918	1,125,289	43,450,095	3,095,568	49,269,076
1967	43,450,095	1,572,424	—	1,268,002	603,459	4,120	1,216,049	45,682,051	2,231,956	50,945,169
1968	45,682,051	230,116	—	2,867,357	282,913	(1,255)	1,394,721	47,666,461	1,948,410	54,185,935
1969	47,666,461	2,043,815	—	2,690,603	1,104,452	2,197	1,556,533	51,950,995	4,284,534	57,467,963
1970	51,950,995	493,804	—	2,516,126	193,682	20,205	1,799,184	53,375,628	1,424,633	60,289,373
1971	53,375,628	983,556	—	2,280,205	775,500	65	1,953,104	55,461,850	2,086,222	61,964,760
1972	55,461,850	(2,004,125)	—	1,243,897	487,538	(5,580)	2,247,798	52,935,782	(2,526,068)	60,546,769
1973	52,935,782	(167,054)	—	1,257,243	686,714	70,097	2,325,350	52,457,432	(478,350)	60,801,088
1974	52,457,432	2,953,557	—	3,487,099	193,056	10,428	2,393,486	56,708,086	4,250,654	64,459,133
1975	56,708,086	(177,606)	—	2,412,582	362,895	29,869	2,361,110	56,974,716	266,630	71,466,773
1976	56,974,716	(367,880)	—	3,587,990	639,345	(11,053)	2,541,176	58,281,942	1,307,226	76,359,832
1977	58,281,942	1,432,871	—	1,852,325	351,007	46,730	2,492,849	59,472,026	1,190,084	78,031,771
ESTABLISHED RESERVES										
1977	76,835,973	d	—	d	d	46,709	2,492,850	79,180,390	2,344,416	—
1978	79,180,390	2,026,962	—	2,534,342	1,018,734	3,443	2,340,406	82,423,467	3,243,077	—
1979	82,423,467	3,012,475	—	2,062,527	3,347,747	10,613	2,263,030	88,593,799	6,170,332	—
1980	88,594,374	62,043	—	1,408,320	900,050	(33,222)	2,486,016	88,445,549	(148,825)	—
1981	88,461,174	2,234,086	—	2,062,408	624,303	9,372	2,405,800	90,985,543	2,524,369	—
1982	90,985,541	1,750,541	—	1,425,609	214,029	73,450	2,466,895	91,982,275	996,734	—

a. Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
b. Includes proved reserves.
c. For definition refer to Glossary.
d. Not available.
( ): Denotes negative volume.
Source: Canadian Petroleum Association, "Report of the Reserves Committee," *News Release*, June 2, 1983.

TABLE 2-10

ESTIMATED ESTABLISHED REMAINING MARKETABLE RESERVES OF NATURAL GAS IN CANADA, BY PROVINCE, 1982*

(Millions of cubic feet)

			Remaining Reserves At December 31, 1982				
				Net			
Province	Remaining Reserves December 31, 1981	Change During Year	Total	Non-associated	Associated	Dissolved	Under ground Storage
Canada	**90,985,541**	**996,734**	**91,982,275**	**81,828,104**	**7,005,108**	**2,838,970**	**310,093**
Total West, Canada	**90,674,881**	**986,367**	**91,661,249**	**81,720,860**	**7,004,078**	**2,838,970**	**97,341**
Alberta	61,171,115	185,807	61,356,922	52,045,166	6,537,431	2,682,699	91,626
Arctic Islands	13,509,560	—	13,509,561	13,509,561	—	—	—
Br. Columbia	7,890,940	(60,066)	7,830,874	7,259,644	454,506	116,724	—
Mackenzie Delta	6,536,367	1,018,389	7,554,755	7,554,755	—	—	—
Mainland Territories	411,125	(6,000)	405,126	405,126	—	—	—
Saskatchewan	1,155,774	(151,763)	1,004,011	946,608	12,141	39,547	5,715
Total East, Canada	**310,660**	**10,367**	**321,026**	**107,246**	**1,029**	—	**212,751**
Ontario	299,407	13,526	312,932	100,181	—	—	212,751
Other E. Canada	11,253	(3,159)	8,094	7,065	1,029	—	—

*Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
( ): Denotes negative volume.
Source: Same as Table 2-9.

TABLE 2-11

CHANGES IN ESTIMATED ESTABLISHED REMAINING MARKETABLE RESERVES OF NATURAL GAS IN CANADA, BY PROVINCE, DURING 1982*

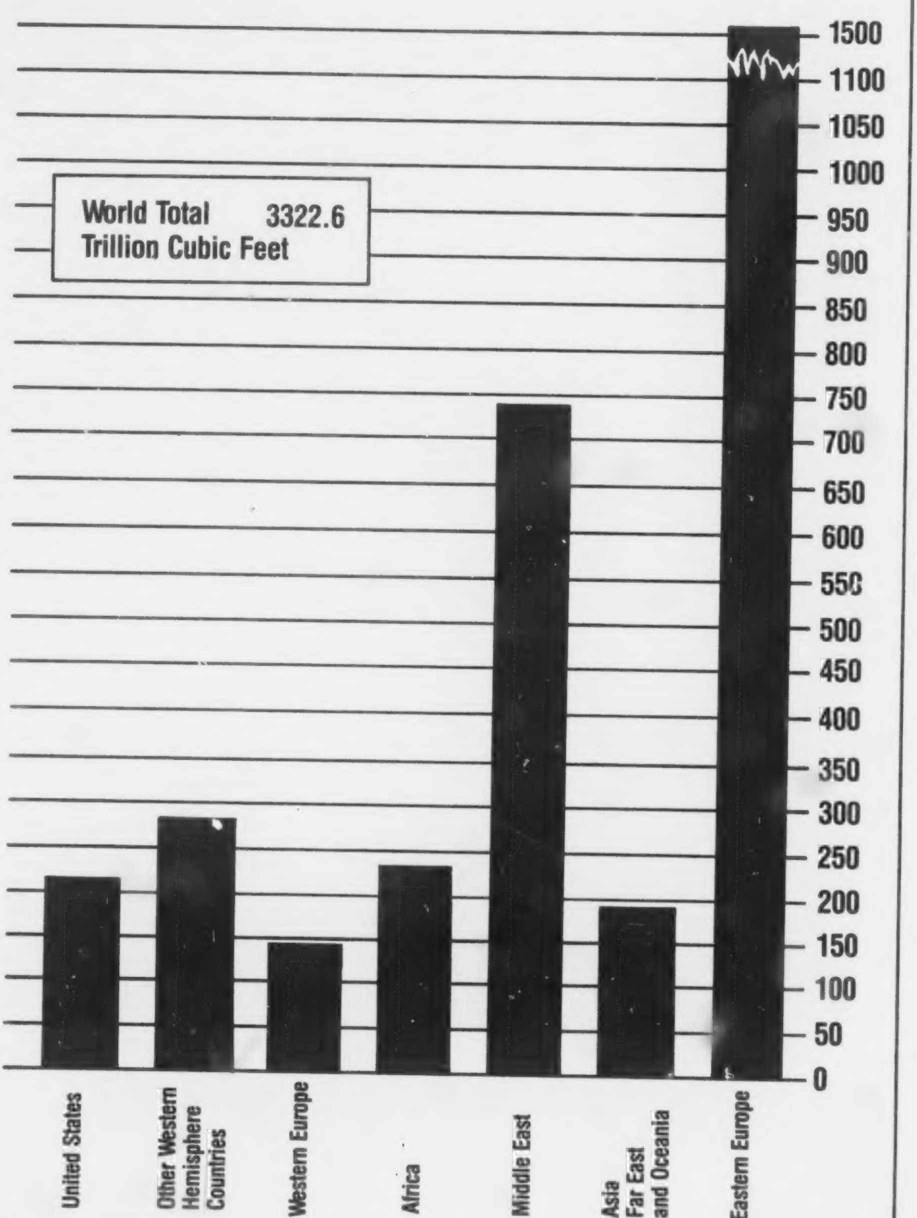
(Millions of cubic feet)

		Changes in Reserves during 1982					
Province	Remaining Reserves December 31, 1981	Revisions	Extensions	Discoveries	Net Change in Underground Storage	Net Production	Remaining Reserves December 31, 1982
Canada	**90,985,541**	**1,750,541**	**1,425,609**	**214,029**	**73,450**	**2,466,895**	**91,982,275**
Total West, Canada	**90,674,881**	**1,752,564**	**1,425,609**	**213,319**	**46,754**	**2,451,878**	**91,661,249**
Alberta	61,171,115	1,114,523	1,065,142	126,238	46,789	2,166,884	61,356,922
Arctic Islands	13,509,560	—	—	—	—	—	13,509,561
Br. Columbia	7,890,940	74,550	19,667	87,081	—	241,364	7,830,874
Mackenzie Delta	6,536,367	677,589	340,800	—	—	—	7,554,755
Mainland Territories	411,125	35	—	—	—	6,035	405,126
Saskatchewan	1,155,774	(114,133)	—	—	(35)	37,595	1,004,011
Total East, Canada	**310,660**	**(2,022)**	—	**710**	**26,696**	**15,017**	**321,026**
Ontario	299,407	924	—	710	26,696	14,804	312,932
Other E. Canada	11,253	(2,946)	—	—	—	213	8,094

*Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
( ): Denotes negative volume.
Source: Same as Table 2-9.

CHART 2-4

WORLD ESTIMATED NATURAL GAS RESERVES, 1982

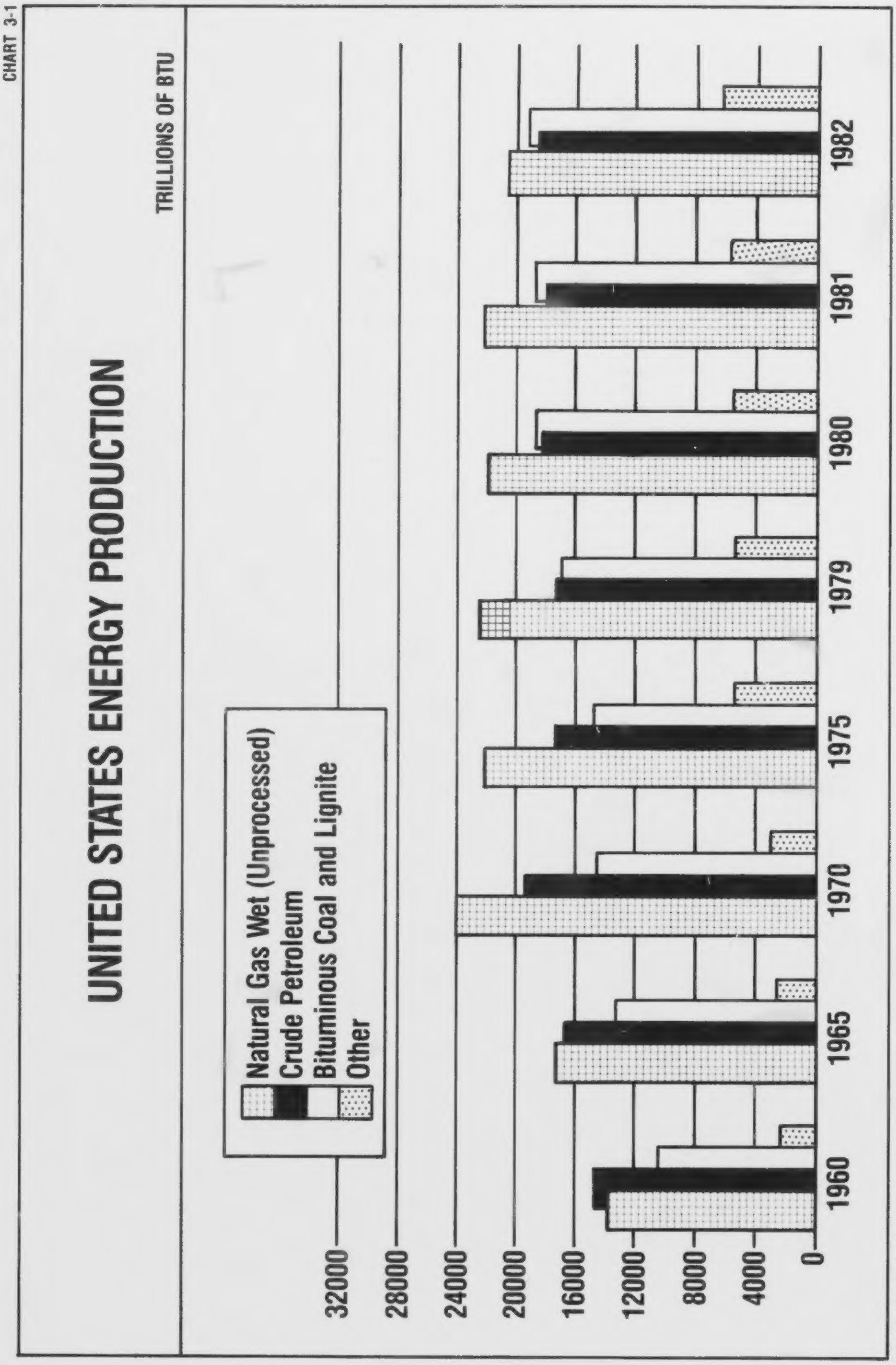


SOURCE: WORLD OIL, AUGUST 15, 1983

SECTION 3
NATURAL GAS SUPPLY

	1982	% Change 82/81
Maximum Day Sendout (Trillions of Btu)	86.2	+ 9.5
Production (wet) (Trillions of Btu)	20,248	− 8.0
Net Imports (Millions of cubic feet)	881,663	+ 4.4
Producing Gas Wells	203,663	+ 2.4
New Gas Well Completions	18,953	+ 5.9

CHART 3-1



UNITED STATES ENERGY PRODUCTION

REFERENCE: TABLE 3-1

SUPPLY

TABLE 3-1

ANNUAL PRODUCTION OF FOSSIL ENERGY RESOURCES AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER IN THE UNITED STATES, 1960-1982

(Trillions of Btu)[a]

Year	Natural Gas Wet (unprocessed)	Crude Petroleum	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power[b]	Nuclear[c]	Other[e]	Grand Total Energy
1960	13,822	14,935	10,886	478	1,578	5	*	41,704
1965	17,628	16,521	13,417	378	2,033	38	*	50,015
1966	18,984	16,925	13,507	329	2,062	57	*	51,864
1967	20,087	18,100	13,904	311	2,347	80	*	54,829
1968	21,548	18,593	13,664	291	2,349	130	*	56,575
1969	22,838	18,886	13,957	266	2,648	146	*	58,741
1970	24,154	19,772	14,820	247	2,630	229	*	61,852
1971	24,805	20,033	13,385	222	2,825	404	*	61,674
1972	24,792	20,041	14,319	181	2,866	576	*	62,775
1973	24,756	19,493	14,192	174	2,861	910	46	62,433
1974	23,681	18,575	14,300	168	3,177	1,272	56	61,229
1975	22,014	17,729	15,031	158	3,155	1,900	72	60,059
1976	21,807	17,262	15,695	158	2,976	2,111	81	60,091
1977	21,892	17,454	15,829	d	2,333	2,702	82	60,293
1978	21,730	18,434	15,037	d	2,937	3,024	68	61,231
1979	22,362	18,104	17,651	d	2,931	2,715	89	63,851
1980^{R}	22,170	18,249	18,640	d	2,900	2,739	114	64,812
1981^{R}	22,001	18,146	18,443	d	2,741	2,974	127	64,432
1982	20,248	18,357	18,657	d	3,245	3,084	108	63,700

a. The unit heat values employed are: Anthracite, 11,845 Btu per pound; bituminous coal and lignite, 11,190 Btu per pound; petroleum approx. 5,800,000 Btu per barrel, obtained by using 5,253,000 for gasoline, 5,670,000 for kerosene, 5,825,000 for distillate, 6,287,000 for residual, 6,065,000 for lubricants, 5,537,000 for wax, 6,636,000 for asphalt and 5,796,000 miscellaneous; natural gas dry 1,015 Btu per cubic foot; natural gas liquids obtained by using 110,000 Btu per gallon for natural gasoline; 91,333 Btu per gallon for LP gas and ethane at 73,381 Btu per gallon.

b. Hydropower output is converted to theoretical energy inputs calculated from national average heat rates for fossil-fueled steam-electric plants obtained from the Federal Power Commission.

c. Nuclear power energy input conversion is based on information from the Atomic Power Commission.

d. Included in "Bituminous Coal and Lignite."

e. Includes geothermal power and electricity produced from wood and waste.

Source: Prior to 1977 U.S. Bureau of Mines, for 1977 and beyond, data taken from *Monthly Energy Review*, U.S. Dept. of Energy.

R—Revised *Unavailable

TABLE 3-2

ANNUAL PRODUCTION OF FOSSIL ENERGY RESOURCES AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER IN THE UNITED STATES, 1960-1982

(Percentage)

Year	Natural Gas Wet (unprocessed)	Crude Petroleum	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power	Nuclear	Other[c]	Grand Total Energy
1960	33.2	35.8	26.1	1.1	3.8	a	*	100.0
1965	35.2	33.0	26.8	0.8	4.1	0.1	*	100.0
1966	36.6	32.6	26.1	0.6	4.0	0.1	*	100.0
1967	36.6	33.0	25.4	0.6	4.3	0.1	*	100.0
1968	38.1	32.8	24.2	0.5	4.2	0.2	*	100.0
1969	38.9	32.2	23.8	0.4	4.5	0.2	*	100.0
1970	39.0	32.0	24.0	0.4	4.2	0.4	*	100.0
1971	40.2	32.5	21.7	0.4	4.6	0.6	*	100.0
1972	39.5	31.9	22.8	0.3	4.6	0.9	*	100.0
1973	39.7	31.2	22.7	0.3	4.6	1.4	0.1	100.0
1974	38.7	30.3	23.4	0.3	5.2	2.0	0.1	100.0
1975	36.7	29.5	25.0	0.3	5.3	3.1	0.1	100.0
1976	36.3	28.7	26.1	0.3	5.0	3.5	0.1	100.0
1977	36.3	28.9	26.3	b	3.9	4.5	0.1	100.0
1978	35.5	30.1	24.6	b	4.8	4.9	0.1	100.0
1979	35.0	28.4	27.6	b	4.6	4.3	0.1	100.0
1980^{R}	34.5	27.9	28.8	b	4.5	4.2	0.2	100.0
1981^{R}	34.1	28.2	28.6	b	4.3	4.6	0.2	100.0
1982	31.8	28.8	29.3	b	5.1	4.8	0.2	100.0

a. Less than 0.05.

b. Included in "Bituminous Coal and Lignite."

c. Includes geothermal power and electricity produced from wood and waste.

Source: Same as Table 3-1.

R—Revised *Unavailable

TABLE 3-3
SUPPLY AND DISPOSITION OF GAS IN THE UNITED STATES, 1960-1981

(Millions of cubic feet)

	Gross Production[a]						Disposition of Marketed Production										
Year	Gas Wells	Oil Wells	Total	Repressuring	Vented and Flared	Marketed Production[b]	Extraction Loss	Lease and Plant Fuel	Net Change in Underground Storage	Pipeline Fuel	Unaccounted For	Nonhydrocarbon Gases	Domestic Dry Production For Sale	Net Imports	Supplemental Supplies	Delivered to Consumers[c]
1960	10,853,426	4,234,485	15,087,911	1,753,996	562,877	12,771,038	1,779,671		131,694	347,075	274,231	d	10,238,367	144,314	d	10,382,681
1961	11,195,087	4,265,225	15,460,312	1,682,754	523,533	13,254,025	1,881,208		145,616	377,607	234,808	d	10,614,786	208,113	d	10,822,899
1962	11,702,382	4,336,591	16,038,973	1,736,722	425,629	13,876,622	1,993,128		86,487	382,496	285,726	d	11,128,785	385,720	d	11,514,505
1963	12,606,022	4,367,346	16,973,368	1,843,297	383,408	14,746,663	2,081,339		130,772	423,783	364,658	d	11,746,111	389,247	d	12,135,358
1964	13,035,200	4,405,100	17,440,300	1,638,161	339,996	15,462,143	2,082,029		128,804	433,204	302,781	d	12,515,325	421,421	d	12,936,746
1965	13,523,600	4,439,500	17,963,100	1,604,204	319,143	16,039,753	1,909,697		118,115	500,524	318,711	d	13,192,706	430,262	d	13,622,968
1966	13,893,921	5,139,918	19,033,839	1,451,516	375,695	17,206,628	1,772,708		68,855	535,353	401,203	d	14,428,509	455,141	d	14,883,650
1967	15,346,853	4,904,923	20,251,776	1,590,574	489,877	18,171,325	784,534	1,140,966	184,829	575,752	296,214	d	15,189,030	482,612	d	15,671,642
1968	16,539,925	4,785,075	21,325,000	1,486,092	516,508	19,322,400	827,877	1,237,131	95,539	590,965	325,062	d	16,245,826	558,140	d	16,803,966
1969	17,489,415	5,189,780	22,679,195	1,455,205	525,750	20,698,240	866,560	1,345,648	119,500	630,962	331,587	d	17,403,983	675,647	d	18,079,630
1970	18,594,658	5,191,795	23,786,453	1,376,351	489,460	21,920,642	906,413	1,398,758	398,160	722,166	227,650	d	18,267,495	750,967	d	19,018,462
1971	18,925,136	5,162,895	24,088,031	1,310,458	284,561	22,493,012	883,127	1,413,650	331,768	742,592	338,999	d	18,782,876	854,336	d	19,637,212
1972	19,042,592	4,973,517	24,016,109	1,236,292	248,119	22,531,698	907,993	1,455,563	135,734	766,156	328,002	d	18,938,250	941,483	d	19,879,733
1973	19,371,600	4,695,602	24,067,202	1,171,361	248,292	22,647,549	916,551	1,495,915	441,504	728,177	195,863	d	18,869,539	955,732	d	19,825,271
1974	18,669,212	4,180,581	22,849,793	1,079,890	169,381	21,600,522	887,490	1,477,386	83,663	668,792	288,731	d	18,194,460	882,495	d	19,076,955
1975	17,380,293	3,723,237	21,103,530	860,956	133,913	20,108,661	872,282	1,396,277	344,054	582,963	235,068	d	16,678,020	880,333	d	17,558,353
1976	17,190,655	3,753,123	20,943,778	859,410	131,930	19,952,438	854,086	1,634,355	(165,327)	548,323	216,240	d	16,864,760	899,058	d	17,763,818
1977	17,415,983	3,681,088	21,097,071	934,801	136,807	20,025,463	862,563	1,659,145	556,631	532,669	41,063	d	16,373,392	955,375	d	17,328,767
1978	17,394,213	3,914,602	21,308,815	1,181,432	153,350	19,974,033	852,130	1,647,911	120,237	530,451	287,201	d	16,536,103	913,013	d	17,449,116
1979	18,033,879	3,849,474	21,883,353	1,245,074	167,019	20,471,260	807,845	1,498,530	248,034	600,964	372,330	d	16,943,557	1,197,710	d	18,141,267
1980[R]	17,572,526	4,297,166	21,869,692	1,365,454	125,451	20,378,787	776,605	1,026,438	(23,269)	634,622	644,072	194,550	17,125,769	935,874	154,590	18,216,233
1981	17,336,862	4,250,591	21,587,453	1,311,735	98,017	20,177,701	774,562	927,591	297,430	642,325	505,026	217,352	16,813,415	844,825	175,702	17,833,942

a. Includes gas (mostly residue gas) blown to the air but does not include direct waste on producing properties, except where data are available.
b. "Marketed Production" equals "Total Gross Production" less "Repressuring" and "Vented and Flared". It includes an allowance for natural gas liquids content in the natural gas and nonhydrocarbon gases.
c. Defined as Domestic Dry Production For Sale plus Net Imports plus Supplemental Gas Supplies. See Table 3-15 for details on Supplemental Gas Supplies.
d. 1980 is the first year this data is available.
( ): Denotes negative.   R—Revised.
Sources: Energy Information Administration, U.S. Department of Energy, *Natural Gas Annual.*
Note: 1982 data reported by U.S. Department of Energy, *Monthly Energy Review*, May, 1983 is as follows: "Marketed Production—18,462,000 million of cubic feet (MMcf); "Net Imports"—917,000 MMcf; "Net Change in Underground Storage"—minus 202,000 MMcf.

TABLE 3-4

GAS UTILITY INDUSTRY, GAS SUPPLY AND DISPOSITION, 1960-1982[f]

(Trillions of Btu)

	Amount							
	1960	1965	1970[a]	1975	1979	1980[R]	1981[R]	1982
Supply—Produced and Purchased—Total	**10,544.6**	**13,315.9**	**18,829.5**	**16,811.5**	**17,068.4**	**17,276.4**	**17,209.3**	**16,095.1**
Natural	10,544.6	13,315.9	18,661.8	16,490.1	16,520.2	16,935.3	16,927.9	15,843.9
Manufactured	b	b	75.6	19.3	13.1	8.8	7.7	3.9
Liquefied Petroleum Gas	b	b	26.9	24.8	18.0	17.9	17.1	12.9
Substitute Natural Gas	b	b	1.2	261.3	281.2	198.4	188.8	172.8
Liquefied Natural Gas	b	b	0.0	8.4	202.6	79.6	31.7	27.7
Unclassified	b	b	64.0	7.6	33.3	36.4	36.1	33.9
Disposition—Total	**10,544.6**	**13,315.9**	**18,829.5**	**16,811.5**	**17,068.4**	**17,276.4**	**17,209.3**	**16,095.1**
Used in Production of Other Gases[c]	215.9	126.7	125.4	124.2	65.3	95.0	79.8	84.8
Company Use as a Fuel[d]	757.6	995.7	1,380.1	1,089.3	919.6	1,278.7	1,191.9	1,042.4
Sales to Ultimate Consumers	9,054.6	11,842.0	16,043.5	14,862.9	15,440.3	15,413.2	15,374.8	14,280.5
Other Deliveries (Net)	54.9	89.6	70.1	83.9	55.6	85.8	44.8	5.3
Placed in Storage (Net)	164.7	67.6	473.6	348.8	291.6	16.9	149.7	285.7
Unaccounted For[e]	296.9	194.3	736.8	302.4	296.0	386.8	368.3	396.4

a. Includes Natural Gas only prior to 1970.
b. Not available.
c. Includes Natural Gas used for enriching, reforming and mixing.
d. Includes interdepartmental transfers.
e. Represents difference between supply and disposition, and should not be interpreted as a reliable measure of transmission efficiency.
f. Total supply figures involve some double counting. For production of supplementals see Table 3-15.
R—Revised.

TABLE 3-5

GAS UTILITY INDUSTRY, MAXIMUM AND MINIMUM DAY SENDOUT[a] BY SOURCE OF SUPPLY, 1975-1982[b]

(Trillions of Btu)

	1975	1976	1977	1978	1979	1980	1981[R]	1982
Maximum Day Sendout—Total	**74.6**	**78.9**	**81.8**	**92.1**	**83.8**	**76.1**	**78.8**	**86.2**
Peak Shaving Facilities	0.9	1.9	3.7	3.4	2.0	1.3	2.5	3.4
Underground Storage Withdrawal	31.4	36.3	37.3	36.3	38.3	38.3	37.2	42.4
Regular Production and Purchases	42.3	40.7	40.8	52.4	43.5	36.5	39.1	40.4
Minimum Day Sendout—Total	**19.9**	**19.3**	**17.0**	**16.3**	**17.8**	**16.0**	**16.6**	**14.0**
Average Day Sendout—Total	**40.7**	**40.6**	**39.3**	**40.4**	**42.3**	**42.2**	**42.1**	**39.1**

a. Represents summation of all companies maximum/minimum day sendout.
b. Excludes sendout of pipeline companies to avoid duplication. Underground storage withdrawals include amounts from fields operated by both distributors and pipelines.
R—Revised.

TABLE 3-6
GROSS PRODUCTION OF NATURAL GAS, BY STATE, 1965-1981[a]

(Millions of cubic feet)

Division and State	1965	1970	1975	1978	1979	1980	1981
United States	**17,963,100**	**23,786,453**	**21,103,530**	**21,308,815**	**21,883,353**	**21,869,692**	**21,587,453**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**88,240**	**80,472**	**92,400**	**111,663**	**111,813**	**113,089**	**141,454**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	13,900	15,500	15,650	19,000
Pennsylvania	84,900	77,114	84,772	97,763	96,313	97,439	122,454
East North Central	**82,700**	**97,276**	**191,497**	**268,745**	**291,460**	**305,003**	**301,052**
Illinois	7,500	4,972	1,440	1,159	1,585	1,574	1,295
Indiana	2,400	153	346	163	350	463	330
Michigan	36,900	40,038	103,901	152,184	164,860	164,110	158,293
Ohio	35,900	52,113	85,810	115,239	124,665	138,856	141,134
Wisconsin	0	0	0	0	0	0	0
West North Central	**866,900**	**965,535**	**877,137**	**897,240**	**849,690**	**791,315**	**697,708**
Iowa	0	0	0	0	0	0	0
Kansas	806,800	904,475	846,164	857,071	800,163	737,246	641,833
Minnesota	0	0	0	0	0	0	0
Missouri	b	b	b	30	0	0	0
Nebraska	12,100	6,309	3,963	2,882	3,208	2,550	2,713
North Dakota	48,000	54,751	26,941	37,287	45,400	50,321	51,955
South Dakota	0	b	39	0	919	1,198	1,207
South Atlantic	**211,060**	**246,599**	**205,683**	**208,739**	**209,267**	**210,852**	**208,749**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	b	44,383	51,595	50,190	46,421	38,539
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	88	28	68	56
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	8,492	8,544	7,812	8,903
West Virginia	207,500	242,981	154,484	148,564	150,505	156,551	161,251
East South Central	**277,300**	**234,912**	**192,544**	**310,020**	**344,196**	**385,362**	**421,525**
Alabama	b	b	38,921	90,012	90,695	111,83	125,624
Kentucky	79,100	77,892	60,511	70,044	59,520	57,180	61,312
Mississippi	198,200	157,020	92,500	148,482	192,376	215,105	232,870
Tennessee	b	b	612	1,482	1,605	1,241	1,719
West South Central	**14,022,900**	**19,469,337**	**17,073,397**	**16,647,141**	**17,038,145**	**16,810,823**	**16,432,827**
Arkansas	104,000	183,650	121,518	127,954	127,469	127,696	132,529
Louisiana	4,764,300	8,076,157	7,242,408	7,638,931	7,358,795	7,008,489	6,829,507
Oklahoma	1,414,000	1,811,004	1,720,698	1,892,413	1,958,337	2,018,577	2,019,199
Texas	7,740,600	9,398,526	7,988,773	6,987,843	7,593,544	7,656,061	7,451,592
Mountain	**1,492,500**	**1,744,236**	**1,849,992**	**1,884,932**	**1,968,293**	**1,952,333**	**1,959,241**
Arizona	b	b	255	286	348	357	293
Colorado	155,200	115,157	174,145	185,019	192,694	191,806	200,739
Idaho	0	0	0	0	0	0	0
Montana	29,800	48,302	44,547	48,497	56,094	53,802	58,502
Nevada	0	0	0	0	0	0	0
New Mexico	956,500	1,141,889	1,227,200	1,198,593	1,200,469	1,168,049	1,153,163
Utah	92,100	73,386	77,607	80,227	78,674	87,766	91,191
Wyoming	258,900	365,502	326,238	372,310	440,014	450,553	455,353
Pacific	**917,800**	**945,099**	**620,880**	**980,335**	**1,070,489**	**1,300,915**	**1,424,897**
Alaska	12,800	217,854	253,227	596,834	732,990	893,759	943,059
California	905,000	727,245	367,653	383,501	337,497	407,151	481,833
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	0	2	5	5
Washington	0	0	0	0	0	0	0
Other States	**3,700**	**2,987**	**0**	**0**	**0**	**0**	**0**

a. Includes gas (mostly residue gas) blown to the air, but does not include direct waste on producing properties, except where data are available.
b. Included in "Other States."
Source: Energy Information Administration, U.S. Department of Energy, *Natural Gas Annual*, 1981.

TABLE 3-7
NET WELLHEAD PRODUCTION OF NATURAL GAS, BY STATE, 1965-1981[a]

(Millions of cubic feet)

Division and State	1965	1970	1975	1978	1979	1980	1981
United States	**16,358,896**	**22,410,102**	**20,242,574**	**20,127,383**	**20,638,279**	**20,504,238**	**20,275,718**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**87,842**	**80,199**	**92,400**	**111,663**	**111,813**	**113,089**	**141,454**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	13,900	15,500	15,650	19,000
Pennsylvania	84,502	76,841	84,772	97,763	96,313	97,439	122,454
East North Central	**80,800**	**96,898**	**190,471**	**266,203**	**288,057**	**302,628**	**298,662**
Illinois	7,500	4,972	1,440	1,159	1,585	1,574	1,295
Indiana	2,400	153	346	163	350	463	330
Michigan	35,000	39,660	103,725	150,783	162,691	161,735	155,903
Ohio	35,900	52,113	84,960	114,098	123,431	138,856	141,134
Wisconsin	b	0	0	0	0	0	0
West North Central	**860,204**	**963,410**	**875,409**	**895,514**	**848,090**	**789,841**	**687,946**
Iowa	0	0	0	0	0	0	0
Kansas	806,683	902,668	844,471	855,345	798,563	735,772	640,755
Minnesota	0	0	0	0	0	0	0
Missouri	b	b	30	0	0	0	0
Nebraska	11,985	5,991	3,963	2,882	3,208	2,550	2,713
North Dakota	41,536	54,751	26,941	37,287	45,400	50,321	43,271
South Dakota	0	b	5	0	919	1,198	1,207
South Atlantic	**211,044**	**246,070**	**205,683**	**208,739**	**209,267**	**210,852**	**206,576**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	b	44,383	51,595	50,190	46,421	36,366
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	88	28	68	56
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	8,492	8,544	7,812	8,903
West Virginia	207,484	242,452	154,484	148,564	150,505	156,551	161,251
East South Central	**255,601**	**211,156**	**186,251**	**300,775**	**330,393**	**369,219**	**408,409**
Alabama	b	b	38,921	87,294	87,312	108,702	121,819
Kentucky	79,100	77,892	60,511	70,044	59,520	57,180	61,312
Mississippi	176,501	133,264	86,207	142,852	182,494	202,096	223,559
Tennessee	b	b	612	585	1,067	1,241	1,719
West South Central	**12,769,359**	**13,306,535**	**16,387,930**	**15,988,776**	**16,466,145**	**16,273,072**	**15,999,077**
Arkansas	83,845	181,577	117,555	107,661	109,923	112,202	93,538
Louisiana	4,589,349	7,942,365	7,116,104	7,506,304	7,292,278	6,962,775	6,803,226
Oklahoma	1,356,738	1,724,572	1,637,212	1,801,071	1,861,971	1,917,379	2,019,199
Texas	6,739,427	8,458,021	7,517,059	6,573,740	7,201,973	7,280,716	7,083,114
Mountain	**1,416,853**	**1,705,299**	**1,813,914**	**1,832,089**	**1,909,773**	**1,898,955**	**1,902,758**
Arizona	b	b	255	286	348	357	293
Colorado	131,342	112,930	174,145	184,801	192,438	191,610	200,341
Idaho	0	0	0	0	0	0	0
Montana	29,221	47,908	43,936	47,930	55,577	53,572	58,461
Nevada	0	0	0	0	0	0	0
New Mexico	945,794	1,141,889	1,219,072	1,182,361	1,185,999	1,154,992	1,140,990
Utah	72,306	45,633	57,160	58,885	59,165	87,766	91,191
Wyoming	238,190	356,939	319,346	357,826	416,246	410,658	411,482
Pacific	**673,493**	**798,000**	**490,516**	**523,624**	**474,741**	**546,582**	**630,836**
Alaska	7,331	146,384	170,671	211,580	225,280	235,408	248,194
California	666,162	651,616	319,845	312,044	249,459	311,169	382,637
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	0	2	5	5
Washington	0	0	0	0	0	0	0
Other States	**3,700**	**2,535**	**0**	**0**	**0**	**0**	**0**

a. As defined by A.G.A. "Net Wellhead Production" equals "Gross Production" less gas for repressuring (see Table 3-3) and therefore includes natural gas liquids.

b. Included in "Other States."

Source: Energy Information Administration, U.S. Department of Energy, *Natural Gas Annual*, 1981.

TABLE 3-8
MARKETED PRODUCTION OF NATURAL GAS, BY STATE, 1965–1981

(Millions of cubic feet)

Division and State	1965	1970	1975	1978	1979	1980[b]	1981[c]
United States	16,039,753	21,920,642	20,108,661	19,974,033	20,471,260	20,378,787	20,177,700
New England	0	0	0	0	0	0	0
Middle Atlantic	87,801	80,199	92,304	111,663	111,813	113,081	138,539
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	13,900	15,500	15,642	16,079
Pennsylvania	84,461	76,841	84,676	97,763	96,313	97,439	122,460
East North Central	77,877	95,967	188,859	263,467	285,097	299,199	[illegible]
Illinois	7,396	4,850	1,440	1,159	1,385	1,578	1,298
Indiana	239	153	346	163	350	463	339
Michigan	34,558	38,851	102,113	148,047	159,731	158,302	152,593
Ohio	35,684	52,113	84,960	114,098	123,631	138,856	141,139
Wisconsin	0	0	0	0	0	0	0
West North Central	839,751	940,922	871,016	[illegible]	830,352	[illegible]	[illegible]
Iowa	0	0	0	0	0	0	0
Kansas	793,379	899,955	843,625	854,404	797,762	[illegible]	[illegible]
Minnesota	0	0	0	0	0	0	0
Missouri	a	87	30	0	0	0	0
Nebraska	10,720	5,991	2,565	2,882	3,208	2,530	2,510
North Dakota	35,652	34,889	24,796	[illegible]	28,468	[illegible]	[illegible]
South Dakota	a	0	0	0	914	1,190	1,050
South Atlantic	210,976	246,070	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	a	0	[illegible]	51,595	50,190	45,766	35,958
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	60	20	68	56
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	8,492	8,544	7,812	8,993
West Virginia	207,416	242,452	154,404	148,564	150,505	156,553	161,251
East South Central	245,801	204,614	172,697	[illegible]	[illegible]	[illegible]	[illegible]
Alabama	a	627	37,814	85,598	80,813	105,527	116,016
Kentucky	78,976	77,892	60,511	78,066	59,520	57,100	61,312
Mississippi	166,825	126,031	74,345	108,579	148,077	185,469	211,371
Tennessee	a	64	27	460	901	1,261	1,735
West South Central	12,507,107	17,932,286	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arkansas	82,831	191,351	116,237	106,792	109,452	111,000	92,986
Louisiana	4,466,756	7,788,276	7,090,640	7,476,497	7,266,217	[illegible]	[illegible]
Oklahoma	1,320,995	1,594,943	1,605,410	1,773,582	1,835,366	[illegible]	[illegible]
Texas	6,636,555	8,357,716	7,485,764	6,548,164	7,174,623	7,251,879	[illegible]
Mountain	1,399,156	1,661,891	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arizona	a	1,101	208	286	207	216	187
Colorado	126,301	105,804	171,629	182,693	191,239	190,816	190,186
Idaho	0	0	0	0	0	0	0
Montana	28,105	42,705	40,734	46,522	53,000	51,867	56,560
Nevada	0	0	0	0	0	0	0
New Mexico	937,205	1,138,980	1,217,430	1,176,190	1,161,263	[illegible]	[illegible]
Utah	71,616	42,781	55,354	38,616	58,685	87,766	91,155
Wyoming	235,929	330,520	306,123	357,267	414,516	[illegible]	[illegible]
Pacific	667,639	760,693	478,570	[illegible]	[illegible]	[illegible]	[illegible]
Alaska	7,255	111,576	160,270	203,000	220,754	[illegible]	[illegible]
California	660,384	649,117	318,300	311,086	248,206	[illegible]	[illegible]
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	0	[illegible]	[illegible]	[illegible]
Washington	0	0	0	0	0	0	0
Other States	3,580	0	0	0	0	0	0

a. Included in "Other States."
b. Includes 194,550 million cubic feet of nonhydrocarbon gases.
c. Includes 217,352 million cubic feet of nonhydrocarbon gases.
Source: Energy Information Administration, U.S. Department of Energy, *Natural Gas Annual*, 1981.

TABLE 5-9
PRODUCTION OF NATURAL GAS BY ALL INTERSTATE NATURAL GAS PIPELINE COMPANIES, BY STATE, 1977-1981

(Millions of cubic feet)

Division and State	1977	1978	1979	1980	1981
Total United States	**10,920,649**	**10,865,478**	**11,535,967**	**11,604,272**	**11,959,310**
New England	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**30,715**	**33,945**	**34,422**	**44,577**	**70,818**
New Jersey	0	0	0	0	0
New York	2,100	1,812	5,385	2,729	8,606
Pennsylvania	28,615	32,133	29,037	41,848	62,212
East North Central	**24,559**	**23,644**	**25,474**	**44,858**	**47,535**
Illinois	0	192	186	241	195
Indiana	0	33	166	9,587	6,162
Michigan	0	0	0	0	0
Ohio	24,559	23,419	25,122	35,030	41,178
Wisconsin	0	0	0	0	0
West North Central	**655,664**	**712,958**	**672,123**	**589,922**	**499,186**
Iowa	0	0	0	0	0
Kansas	639,496	698,190	653,468	566,379	472,067
Minnesota	0	0	0	0	0
Missouri	0	0	0	0	0
Nebraska	5,366	3,565	3,645	3,322	3,561
North Dakota	10,802	11,203	14,168	19,103	22,390
South Dakota	0	0	842	1,118	1,168
South Atlantic	**153,015**	**161,064**	**157,408**	**165,947**	**175,378**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	17,006	18,439	17,821	14,996	9,659
Georgia	0	0	0	0	0
Maryland	85	98	79	71	59
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	5,512	8,542	8,587	7,818	8,897
West Virginia	130,412	133,985	130,921	143,062	156,763
East South Central	**129,453**	**125,339**	**161,859**	**195,980**	**216,027**
Alabama	8,705	13,259	17,310	36,592	40,867
Kentucky	61,369	50,590	40,859	47,555	50,042
Mississippi	59,379	61,490	103,690	111,833	125,086
Tennessee	0	0	0	0	32
West South Central	**8,518,906**	**8,376,897**	**8,982,014**	**9,068,369**	**9,346,583**
Arkansas	74,994	87,808	77,210	71,596	67,143
Louisiana	5,159,164	5,146,714	5,210,191	5,161,204	5,264,477
Oklahoma	866,478	857,564	944,622	953,838	1,001,138
Texas	2,418,270	2,284,811	2,749,991	2,881,731	3,013,825
Mountain	**1,361,961**	**1,411,763**	**1,502,667**	**1,494,619**	**1,603,783**
Arizona	0	0	0	0	0
Colorado	147,083	150,425	155,079	157,385	158,639
Idaho	0	0	0	0	524
Montana	23,432	23,190	36,908	30,458	33,701
Nevada	0	0	0	0	0
New Mexico	911,886	954,919	969,836	936,305	1,003,163
Utah	32,402	38,208	41,519	49,990	63,537
Wyoming	247,158	245,021	299,325	320,481	344,219
Pacific	**0**	**0**	**0**	**0**	**0**
Undifferentiated[a]	**46,376**	**19,868**	**0**	**0**	**0**

a. Production not separable by FERC gas areas.

Source: Energy Information Administration, U.S. Department of Energy, *Gas Supplies of Interstate Natural Gas Pipeline Companies*, 1977-1981.

TABLE 3-10
TOTAL OFFSHORE PRODUCTION OF NATURAL GAS AND PERCENT STATE/FEDERALLY CONTROLLED, BY STATE, 1960-1982

	Alaska			California			Louisiana			Texas			Total		
		Percent			Percent			Percent			Percent			Percent	
Year	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS
1960	—	—	—	1,113	100	—	408,388	33	67	30,960	100	—	440,461	38	62
1961	—	—	—	5,903	100	—	458,481	31	69	13,760	100	—	478,144	33	67
1962	—	—	—	10,671	100	—	588,361	23	77	41,280	100	—	640,312	29	71
1963	—	—	—	25,769	100	—	706,545	20	80	30,960	100	—	763,274	26	74
1964	—	—	—	35,323	100	—	783,474	21	79	30,960	100	—	849,757	27	73
1965	10	100	—	40,770	100	—	871,124	26	74	27,520	100	—	939,424	31	69
1966	1,200	100	—	46,839	100	—	1,265,899	24	76	59,259	29	71	1,373,197	27	73
1967	8,324	100	—	46,732	100	—	1,655,223	34	66	127,473	22	78	1,837,752	35	65
1968	22,844	100	—	86,565	99	1	2,057,291	31	69	154,631	29	71	2,321,331	34	66
1969	44,393	100	—	81,326	94	6	2,478,745	26	74	240,212	47	53	2,844,676	31	69
1970	82,369	100	—	71,225	83	17	2,800,104	19	81	264,420	50	50	3,218,118	25	75
1971	83,750	100	—	60,484	74	26	3,219,200	18	82	387,245	67	33	3,750,679	26	74
1972	74,982	100	—	44,830	78	22	3,480,831	17	83	156,772	6	94	3,757,415	19	81
1973	72,526	100	—	37,581	81	19	3,614,892	15	85	250,338	41	59	3,975,337	17	83
1974	73,295	100	—	30,156	82	18	3,871,964	14	86	254,338	37	63	4,229,753	17	83
1975	75,581	100	—	27,272	86	14	3,821,746	13	87	332,862	63	37	4,257,461	19	81
1976	72,164	100	—	14,305	76	24	4,003,808	13	87	206,043	55	45	4,296,320	16	84
1977	75,735	100	—	14,961	78	22	4,094,784	11	89	354,531	75	25	4,540,011	18	82
1978R	73,206	100	—	16,772	79	21	4,909,206	11	89	402,000	58	42	5,401,184	14	86
1979R	72,339	100	—	15,969	82	18	4,636,462	10	90	719,208	29	71	5,443,978	14	86
1980R	63,267	100	—	14,707	79	21	4,422,826	9	91	879,020	29	71	5,379,820	14	86
1981R	70,216	100	—	20,512	62	38	4,480,935	8	92	966,983	24	76	5,538,646	12	88
1982	67,216	100	—	31,758	56	44	4,163,089	9	91	1,104,987	22	78	5,367,050	12	88

R—Revised.

Source: U.S. Department of the Interior, Minerals Management Service, *Calendar Year Oil & Gas, plus Mining Statistics*, for 1981 and prior years. U.S. Department of the Interior, Minerals Management Service, *Federal Offshore Statistics*, for 1982.

TABLE 3-11

INTERSTATE MOVEMENTS AND MOVEMENTS ACROSS U.S. BORDERS OF NATURAL AND SUPPLEMENTAL GAS,* 1981

(Millions of cubic feet)

Division and State	Interstate Movements			Movements Across U.S. Borders		
	Receipts	Deliveries	Net	Receipts[a]	Deliveries[b]	Net
United States	**51,464,633**	**51,464,633**	**0**	**1,209,549**	**364,724**	**844,825**
New England	**430,594**	**173,708**	**256,886**	**41,419**	**32**	**41,387**
Connecticut	161,068	82,021	79,047	0	0	0
Maine	2,267	0	2,267	0	0	0
Massachusetts	170,128	28,301	141,827	36,824	32	36,792
New Hampshire	6,859	2,133	4,726	6	0	6
Rhode Island	90.272	61,253	29,019	0	0	0
Vermont	0	0	0	4,589	0	4,589
Middle Atlantic	**3,959,558**	**2,111,004**	**1,848,554**	**27,038**	**0**	**27,038**
New Jersey	891,285	408,951	482,334	0	0	0
New York	891,444	260,901	630,548	27,038	0	27,038
Pennsylvania	2,176,824	1,441,152	735,672	0	0	0
East North Central	**7,779,048**	**4,283,634**	**3,495,414**	**10,440**	**283,347**	**−272,907**
Illinois	2,264,715	1,138,477	1,126,238	0	0	0
Indiana	1,743,506	1,089,140	654,366	0	0	0
Michigan	728,736	27,046	701,690	10,440	283,347	−272,907
Ohio	2,318,930	1,637,760	681,170	0	0	0
Wisconsin	723,161	391,211	331,950	0	0	0
West North Central	**5,653,908**	**5,395,968**	**257,940**	**566,516**	**8,904**	**557,612**
Iowa	1,082,708	865,684	217,024	0	0	0
Kansas	1,617,860	1,792,482	(174,622)	0	0	0
Minnesota	266,470	504,359	(237,889)	566,516	8,904	557,612
Missouri	1,421,730	1,130,012	291,718	0	0	0
Nebraska	1,238,716	1,095,943	142,773	0	0	0
North Dakota	4,701	6,630	(1,929)	0	0	0
South Dakota	21,723	858	20,865	0	0	0
South Atlantic	**7,016,861**	**5,700,679**	**1,316,182**	**0**	**0**	**0**
Delaware	32,310	1,769	30,541	0	0	0
District of Columbia	29,299	0	29,299	0	0	0
Florida	291,318	0	291,318	0	0	0
Georgia	1,387,833	1,043,121	344,712	0	0	0
Maryland	905,278	731,363	173,915	0	0	0
North Carolina	901,437	755,544	145,893	0	0	0
South Carolina	1,019,156	901,437	117,719	0	0	0
Virginia	1,053,672	902,638	151,034	0	0	0
West Virginia	1,396,558	1,364,807	31,751	0	0	0
East South Central	**15,497,859**	**14,850,808**	**647,051**	**0**	**0**	**0**
Alabama	2,904,870	2,726,721	178,149	0	0	0
Kentucky	3,391,713	3,243,894	147,819	0	0	0
Mississippi	5,566,506	5,480,593	85,913	0	0	0
Tennessee	3,634,770	3,399,600	235,170	0	0	0
West South Central	**5,939,546**	**14,315,605**	**(8,376,059)**	**105,013**	**2,433**	**102,580**
Arkansas	2,852,414	2,679,339	173,075	0	0	0
Louisiana	1,465,289	6,188,796	(4,723,507)	0	0	0
Oklahoma	801,924	1,882,457	(1,080,533)	0	0	0
Texas	819,919	3,565,013	(2,745,094)	105,013	2,433	102,580
Mountain	**3,039,446**	**4,092,750**	**(1,053,304)**	**324,801**	**14,079**	**310,722**
Arizona	1,497,434	1,300,640	196,794	0	904	−904
Colorado	281,075	241,968	39,107	0	0	0
Idaho	92,572	386,605	(294,033)	303,936	0	303,936
Montana	16,924	7,523	9,401	20,865	13,175	7,690
Nevada	75,667	0	75,667	0	0	0
New Mexico	849,033	1,680,770	(831,737)	0	0	0
Utah	140,716	74,701	66,015	0	0	0
Wyoming	86,025	400,543	(314,518)	0	0	0
Pacific	**2,147,813**	**540,477**	**1,607,336**	**134,322**	**55,929**	**78,393**
Alaska	0	0	0	0	55,929	−55,929
California	1,512,595	0	1,512,595	0	0	0
Hawaii	0	0	0	0	0	0
Oregon	332,716	258,831	73,885	0	0	0
Washington	302,502	281,646	20,856	134,322	0	134,322

a. For detail by country see Table 3-13.
b. For detail by country see Table 3-12.
*Supplemental Gas Supplies totaled 175,702 million cubic feet (MMcf). See Table 3-15.
Note: Totals may not add due to independent rounding.
Source: Energy Information Administration, U.S. Department of Energy, *Natural Gas Annual*, 1981.

TABLE 3-12

EXPORTS OF NATURAL GAS FROM THE UNITED STATES, 1960-1982

(Millions of cubic feet)

Year	Total	Canada	Mexico	Japan[a]
1960	16,100	5,574	10,526	0
1965	27,428	17,892	9,536	0
1966	54,860	44,958	9,902	0
1967	81,595	70,456	11,139	0
1968	93,745	81,647	12,098	0
1969	51,308	34,936	13,390	2,982
1970	69,813	10,860	14,678	44,275
1971	80,365	14,349	15,785	50,231
1972	78,014	15,553	14,579	47,882
1973	77,169	14,824	13,999	48,346
1974	76,789	13,263	13,268	50,258
1975	72,675	10,219	9,454	53,002
1976	64,710	7,506	7,425	49,779
1977	55,626	31	3,940	51,655
1978	52,533	66	4,033	48,434
1979	55,673	76	4,308	51,289
1980	48,731	113	3,886	44,732
1981[R]	59,372[b]	106[b]	3,337	55,929
1982	51,728	162	1,705	49,861

a. LNG exports from Alaska.

b. Volume does not include 305,351 MMcf of intransit natural gas deliveries. The difference of 249 MMcf in the volumes of intransit receipts and deliveries is due to variations in the accounting and billing practices for companies involved in the transfers.

R—Revised.

Source: U.S. Department of Energy, Natural Gas Division.

TABLE 3-13

IMPORTS OF NATURAL GAS TO THE UNITED STATES, 1960-1982

(Millions of cubic feet)

Year	Total	Canada	Mexico	Algeria[a]
1960	156,843	109,855	46,988	0
1965	456,694	404,687	52,007	0
1966	480,591	431,955	48,636	0
1967	564,228	513,256	50,972	0
1968	651,885	604,462	47,423	0
1969	726,952	680,107	46,845	0
1970	820,781	778,688	41,336	757
1971	934,547	910,925	20,689	2,933
1972	1,019,495	1,009,092	8,140	2,262
1973	1,032,903	1,027,216	1,632	4,055
1974	959,285	959,063	222	0
1975	953,007	948,114	0	4,893
1976	963,768	953,613	0	10,155
1977	1,010,431	996,723	2,384	11,324
1978	965,545	881,123	0	84,422
1979	1,253,383	1,000,775	0	252,608
1980	984,767	796,507	102,410	85,850
1981	903,950[b]	762,113[b]	105,013	36,824
1982	933,361	783,432	94,794	55,136

a. Quantities represent total LNG imports from overseas into the U.S.

b. Volume does not include 305,600 MMcf of intransit natural gas receipts.

Source: U.S. Department of Energy, Natural Gas Division.

TABLE 3-14

NATURAL GAS DELIVERED TO CONSUMERS BY STATE, 1965-1981[a]

(Millions of cubic feet)

Division and State	1965	1970	1975	1978	1979	1980	1981[f]
United States	**13,622,968**	**19,018,462**	**17,588,353**	**17,449,116**	**18,141,267**	**18,216,233**	**17,833,942**
New England	**175,051**	**242,507**	**254,070**	**262,220**	**265,770**	**297,506**	**306,576**
Connecticut	40,722	60,524	63,968	65,151	67,898	72,512	76,732
Maine	0	10,691[b]	13,534[b]	14,039[b]	14,881[b]	2,166	2,321
Massachusetts	113,994	146,226	153,461	160,000	155,808	181,912	183,900
New Hampshire	4,084	c	c	c	c	9,448	10,154
Rhode Island	16,251	25,066	23,107	23,030	27,183	27,477	29,086
Vermont	0	c	c	c	c	3,991	4,383
Middle Atlantic	**1,357,337**	**1,772,600**	**1,451,698**	**1,441,712**	**1,591,303**	**1,818,067**	**1,895,334**
New Jersey	209,306	321,910	243,714	228,339	260,025	339,358	389,458
New York	540,672	707,219	573,699	566,198	619,576	733,800	756,522
Pennsylvania	607,359	743,471	634,285	647,175	711,702	744,909	749,354
East North Central	**2,706,665**	**3,843,966**	**3,718,831**	**3,658,817**	**3,691,805**	**3,628,619**	**3,493,437**
Illinois	742,906	1,145,379	1,080,787	1,161,536	1,123,836	1,074,771	1,049,787
Indiana	349,827	534,214	467,736	436,085	494,333	480,346	487,670
Michigan	548,390	795,317	865,539	774,943	848,612	846,278	783,775
Ohio	866,589	1,037,801	944,925	917,194	861,391	883,613	855,704
Wisconsin	198,953	331,255	359,844	369,059	363,633	343,611	316,501
West North Central	**1,398,950**	**1,826,005**	**1,686,051**	**1,537,634**	**1,637,700**	**1,455,928**	**1,311,759**
Iowa	236,443	330,363	329,703	233,298	280,749	256,900	242,357
Kansas	385,364	481,483	402,273	425,698	481,956	411,494	360,833
Minnesota	247,561	334,872	327,315	309,570	323,172	276,717	256,094
Missouri	332,219	416,783	362,130	353,992	340,195	312,872	277,914
Nebraska	155,359	207,550	207,371	152,942	161,118	152,283	132,059
North Dakota	15,069	18,645	24,757	26,743	25,184	21,660	20,512
South Dakota	26,935	36,309	32,502	35,391	25,326	24,002	21,990
South Atlantic	**909,869**	**1,465,035**	**1,268,171**	**1,226,013**	**1,365,035**	**1,390,415**	**1,422,268**
Delaware	17,969	26,421	18,603	20,623	24,977	29,797	30,640
District of Columbia	d	d	d	d	d	27,868	29,023
Florida	182,093	332,223	271,471	311,893	332,664	304,638	324,414
Georgia	206,560	325,650	322,383	274,832	308,177	307,827	308,949
Maryland	113,943[e]	179,784[e]	163,462[e]	158,945[e]	196,774[e]	156,300	172,915
North Carolina	71,473	145,076	111,276	79,390	125,867	147,448	146,223
South Carolina	84,564	156,559	120,308	113,690	116,421	139,214	138,728
Virginia	88,907	128,492	118,083	131,270	129,779	149,980	140,663
West Virginia	144,360	170,830	142,585	135,370	130,376	127,343	130,713
East South Central	**727,845**	**1,009,983**	**809,664**	**747,478**	**849,942**	**856,158**	**826,214**
Alabama	216,998	278,414	245,287	223,048	248,944	242,793	247,289
Kentucky	142,438	209,991	182,781	188,669	191,668	180,368	174,550
Mississippi	189,603	293,154	183,807	166,644	203,655	219,828	198,396
Tennessee	178,806	228,424	197,789	169,117	205,675	213,169	205,979
West South Central	**3,848,796**	**5,545,215**	**5,332,025**	**5,862,752**	**5,723,426**	**5,873,159**	**5,686,628**
Arkansas	255,637	359,338	241,803	205,680	230,807	260,319	252,553
Louisiana	857,118	1,482,275	1,425,686	1,609,552	1,615,568	1,523,691	1,522,261
Oklahoma	389,314	475,974	565,387	669,121	671,025	639,642	592,220
Texas	2,346,727	3,227,628	3,099,149	3,378,401	3,206,026	3,449,507	3,319,594
Mountain	**757,368**	**1,020,744**	**982,840**	**906,796**	**910,084**	**842,444**	**798,597**
Arizona	136,297	168,994	139,130	159,866	152,366	144,511	157,993
Colorado	219,602	277,739	294,760	252,360	263,629	241,765	197,998
Idaho	32,831	42,367	56,182	39,770	49,759	44,835	41,034
Montana	64,320	81,992	75,441	68,305	62,706	54,460	48,533
Nevada	27,679	52,558	61,251	64,506	84,433	58,284	72,584
New Mexico	130,072	191,818	172,638	152,844	131,248	146,579	134,220
Utah	105,524	120,814	116,620	109,210	111,354	106,647	101,007
Wyoming	41,043	84,462	66,818	59,935	54,589	45,363	45,228
Pacific	**1,741,087**	**2,292,407**	**2,055,003**	**1,805,692**	**2,106,202**	**2,053,937**	**2,093,122**
Alaska	5,917	41,672	66,815	128,943	144,203	122,966	106,207
California	1,572,367	2,017,393	1,727,729	1,478,849	1,726,714	1,729,650	1,789,444
Hawaii	0	0	0	0	0	3,131	2,899
Oregon	55,383	89,776	101,980	77,409	84,432	73,083	71,914
Washington	107,420	143,566	158,479	120,491	150,853	125,107	122,658

a. Includes deliveries made directly to end users in addition to gas utility sales as shown in Table 6-7.
b. Includes New Hampshire and Vermont. d. Included in Maryland.
c. Included in Maine. e. Includes District of Columbia.
f. Includes 175,702 million cubic feet (MMcf) of Supplemental Gas Supplies, less 217,352 MMcf of Nonhydrocarbon Gases.
Source: Energy Information Administration, U.S. Department of Energy, *Natural Gas Annual*, 1981.

TABLE 3-15
SUPPLEMENTAL GAS SUPPLIES BY STATE, 1981

(Millions of cubic feet)

Division and State	Total	Synthetic Natural Gas	Propane-Air	Refinery Gas	Other[a]
Total United States	**175,702**	**128,003**	**14,785**	**11,231**	**21,682**
New England	**25,177**	**15,980**	**9,197**	**0**	**0**
Connecticut	1,584	0	1,584	0	0
Maine	94	0	94	0	0
Massachusetts	21,828	15,980	5,848	0	0
New Hampshire	720	0	720	0	0
Rhode Island	951	0	951	0	0
Vermont	0	0	0	0	0
Middle Atlantic	**26,758**	**10,722**	**2,540**	**10,406**	**3,090^{b,e}**
New Jersey	11,504	1,452	1,308	7,816	927^{b}
New York	4,722	2,528	32	0	2,163^{e}
Pennsylvania	10,532	6,742	1,200	2,590	0
East North Central	**107,457**	**98,199**	**1,432**	**825**	**7,001^{d,e}**
Illinois	29,509	28,443	1,066	0	0
Indiana	5,056	0	265	825	3,966^{e}
Michigan	3,038	0	3	0	3,035^{d}
Ohio	69,850	69,756	94	0	0
Wisconsin	4	0	4	0	0
West North Central	**2,509**	**0**	**269**	**0**	**2,242^{c,d}**
Iowa	64	0	15	0	50^{c}
Kansas	0	0	0	0	0
Minnesota	106	0	106	0	0
Missouri	60	0	60	0	0
Nebraska	1,838	0	35	0	1,804^{d}
North Dakota	417	0	29	0	388^{d}
South Dakota	24	0	24	0	0
South Atlantic	**1,363**	**109**	**1,253**	**0**	**1^{b}**
Delaware	135	0	135	0	0
District of Columbia	1	0	0	0	1^{b}
Florida	3	0	3	0	0
Georgia	57	0	57	0	0
Maryland	498	0	498	0	0
North Carolina	42	0	42	0	0
South Carolina	184	0	184	0	0
Virginia	443	109	334	0	0
West Virginia	0	0	0	0	0
East South Central	**67**	**0**	**67**	**0**	**0**
Alabama	23	0	23	0	0
Kentucky	2	0	2	0	0
Mississippi	0	0	0	0	0
Tennessee	42	0	42	0	0
West South Central	**8**	**0**	**8**	**0**	**0**
Arkansas	8	0	8	0	0
Louisiana	0	0	0	0	0
Oklahoma	0	0	0	0	0
Texas	*	0	*	0	0
Mountain	**9,356**	**0**	**8**	**0**	**9,348^{d,e}**
Arizona	0	0	0	0	0
Colorado	9,133	0	7	0	9,126^{d}
Idaho	0	0	0	0	0
Montana	0	0	0	0	0
Nevada	*	0	*	0	0
New Mexico	1	0	1	0	0
Utah	0	0	0	0	0
Wyoming	222	0	0	0	222^{e}
Pacific	**3,006**	**2,993**	**13**	**0**	**0**
Alaska	0	0	0	0	0
California	0	0	0	0	0
Hawaii	2,993	2,993	0	0	0
Oregon	0	0	0	0	0
Washington	13	0	13	0	0

a. Includes bio-mass gas, coke oven gas, manufactured gas, and air injection for Btu stabilization.
b. Manufactured gas. c. Bio-mass gas. d. Air injection for Btu stabilization. e. Coke oven gas.
*Less than 500 thousand cubic feet.
Note: Totals may not add due to independent rounding.
Source: Energy Information Administration, U.S. Department of Energy, *Natural Gas Annual*, 1981.

TABLE 3-16
NATURAL GAS TREATED FOR NATURAL GASOLINE AND ALLIED PRODUCTS, AND QUANTITIES AND VALUE OF PRODUCTS RECOVERED, 1960-1982[a]

		Products Recovered							
	Natural Gas Treated	Natural Gasoline		Liquefied Petroleum Gases		Finished Gasoline and Naphtha		Other Products[b]	
Year	(Millions of cubic feet)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)
1960	9,768,189	4,479,454	313,058	8,444,074	391,566	503,659	43,400	859,394	60,361
1961	10,261,669	4,666,319	311,966	9,085,465	370,186	473,496	31,996	965,648	68,057
1962	11,089,241	4,772,260	333,965	9,409,083	353,334	450,991	37,347	1,021,271	73,505
1963	12,430,353	4,899,323	320,131	10,302,250	359,770	499,901	40,922	1,135,743	78,120
1964	13,176,126	5,286,703	341,714	10,743,591	362,792	506,505	37,815	1,206,973	84,071
1965	13,772,101	5,457,367	360,603	11,257,267	417,249	439,267	36,270	1,391,436	97,481
1966	14,924,429	5,564,139	366,332	12,134,294	527,223	380,135	33,380	1,604,154	120,426
1967	15,641,633	5,850,271	389,156	13,717,861	632,994	307,263	28,044	1,731,727	129,742
1968	16,316,674	6,210,708	411,695	14,753,004	552,335	280,728	26,577	1,868,622	133,407
1969	17,655,108	6,633,018	457,986	15,895,194	498,927	374,514	36,954	1,467,396	108,144
1970	18,509,309	6,935,838	468,602	16,783,662	672,088	240,702	23,234	1,488,270	111,188
1971	19,252,807	6,942,474	496,676	17,540,628	769,397	224,784	23,210	1,240,344	96,771
1972	19,906,893	6,875,442	500,425	18,678,912	828,718	186,732	20,737	1,063,986	83,261
1973	19,679,291	6,791,736	568,214	18,775,386	1,188,289	136,038	13,902	942,606	86,668
1974	18,684,480	6,212,766	974,825	18,813,732	1,980,769	52,878	10,028	797,664	122,305
1975	17,748,426	5,620,608	777,637	18,651,612	1,893,890	45,528	8,411	712,488	92,650
1976	17,717,951	5,575,584	882,718	18,369,372	2,298,647	40,572	9,650	670,362	93,074
1977	17,569,835	5,587,134	c	18,604,152	c	30,156	c	577,668	c
1978	c	5,306,784	c	18,124,512	c	28,896	c	567,420	c
1979	c	4,042,668	c	26,008,878	c	271,908	c	917,952	c
1980	c	4,560,696	c	18,518,304	c	239,694	c	864,360	c
1981 R	c	4,771,740	c	19,259,772	c	154,014	c	773,472	c
1982 P	c	3,850,308	c	19,277,622	c	93,030	c	545,916	c

a. Due to changes in reporting requirements, 1979-1982 data is not comparable with prior years.
b. Includes plant condensate, kerosene, distillate fuel oil, and miscellaneous products.
c. Not available.
P—Preliminary.
R—Revised.
Source: Energy Information Administration, U.S. Department of Energy, *Petroleum Supply Annual*, 1982.

TABLE 3-17
NUMBER OF PRODUCING GAS WELLS, BY STATE, 1960-1982[a]

Division and State	1960	1965	1970	1975	1980	1981^R	1982^P
United States	**90,761**	**111,680**	**117,483**	**132,095**	**182,004**	**198,839**	**203,663**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**17,350**	**18,666**	**16,839**	**18,200**	**21,976**	**24,136**	**24,150**
New Jersey	0	0	0	0	0	0	0
New York	1,000	1,150	600	900	2,076	2,636	2,650
Pennsylvania	16,350	17,516	16,239	17,300	19,900	21,500	21,500
East North Central	**7,612**	**7,626**	**9,082**	**11,110**	**18,442**	**20,643**	**22,517**
Illinois	45	25	8	41	70	70	60
Indiana	350	275	50	478	698	720	720
Michigan	154	226	1,235	209	423	448	667
Ohio	7,063	7,100	7,789	10,382	17,251	19,405	21,070
Wisconsin	0	0	0	0	0	0	0
West North Central	**6,093**	**7,281**	**8,735**	**8,925**	**12,935**	**15,679**	**11,342**
Iowa	0	0	0	0	0	0	0
Kansas	6,003	7,200	8,660	8,865	12,820	15,550	11,254
Minnesota	0	0	0	0	0	0	0
Missouri	9	11	11	3	0	0	0
Nebraska	53	39	35	19	22	25	22
North Dakota	28	31	29	18	80	65	66
South Dakota	0	0	0	20	13	39	0
South Atlantic	**14,630**	**19,719**	**20,833**	**21,901**	**26,167**	**27,498**	**28,640**
Delaware	0	0	0	0	0	0	0
District of Colmbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0
Maryland	38	20	16	15	9	10	0
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	92	99	115	186	258	288	290
West Virginia	14,500	19,600	20,702	22,700	25,900	27,200	28,350
East South Central	**5,263**	**6,490**	**7,255**	**7,684**	**8,922**	**9,261**	**9,425**
Alabama	4	0	2	45	314	385	461
Kentucky	4,829	6,100	6,913	7,386	7,984	8,151	8,084
Mississippi	400	370	325	248	447	470	520
Tennessee	30	20	15	5	177	255	360
West South Central	**31,261**	**40,502**	**42,283**	**48,440**	**71,447**	**77,711**	**78,219**
Arkansas	370	744	1,008	1,128	1,114	1,600	1,679
Louisiana	6,479	8,563	9,690	11,359	16,190	17,048	13,503
Oklahoma	5,800	7,447	8,168	9,769	16,419	18,451	20,742
Texas	18,612	23,748	23,417	26,184	37,724	40,612	42,295
Mountain	**7,898**	**10,352**	**11,425**	**14,189**	**20,914**	**22,713**	**23,932**
Arizona	1	8	4	1	1	1	0
Colorado	466	701	861	1,380	2,997	3,543	3,667
Idaho	0	0	0	0	0	0	0
Montana	999	784	739	1,235	1,881	2,140	2,069
Nevada	0	0	0	0	0	0	0
New Mexico	6,047	8,010	8,848	10,352	14,571	15,560	16,025
Utah	35	148	173	271	200	226	282
Wyoming	350	701	800	950	1,264	1,243	1,889
Pacific	**654**	**1,044**	**1,031**	**1,646**	**1,201**	**1,198**	**1,173**
Alaska	2	11	51	61	71	79	123
California	652	1,033	980	1,585	1,125	1,110	1,050
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	0	5	9	0
Washington	0	0	0	0	0	0	0
Other States	**0**	**0**	**0**	**0**	**0**	**0**	**65**
Federal Waters	**b**	**b**	**b**	**b**	**b**	**b**	**4,200**

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a. Data pertain only to dry gas and condensate wells. Data as of December 31.
b. "Federal Waters" is included in Texas, Louisiana, and California totals.
P—Preliminary.
R—Revised.
Source: Preliminary numbers taken from *World Oil*, February 15, 1983. Revised numbers taken from Energy Information Administration, U.S. Department of Energy, *Natural Gas Annual*, 1981.

TABLE 3-18
NEW GAS WELL COMPLETIONS, BY STATE, 1960-1982[a]

Division and State	1960	1965	1970	1975	1979	1980	1981	1982
United States	**3,952**	**4,724**	**3,840**	**7,580**	**14,681**	**15,730**	**17,894**	**18,953**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**297**	**304**	**267**	**876**	**1,346**	**1,459**	**2,116**	**2,190**
New Jersey	0	0	0	0	0	0	0	0
New York	28	18	17	236	302	360	439	456
Pennsylvania	269	286	250	640	1,044	1,099	1,677	1,734
East North Central	**306**	**317**	**711**	**610**	**2,088**	**2,021**	**2,902**	**2,601**
Illinois	8	8	5	5	16	8	18	10
Indiana	12	10	4	17	28	46	31	24
Michigan	26	36	19	33	60	54	42	46
Ohio	260	263	683	555	1,984	1,913	2,811	2,521
Wisconsin	0	0	0	0	0	0	0	0
West North Central	**202**	**207**	**111**	**440**	**804**	**607**	**664**	**874**
Iowa	0	0	0	0	0	0	0	0
Kansas	200	206	108	438	748	573	616	810
Minnesota	0	0	0	0	0	0	0	0
Missouri	0	0	0	1	4	1	3	11
Nebraska	2	1	2	1	25	14	8	9
North Dakota	0	0	1	0	19	15	19	25
South Dakota	0	0	0	0	8	4	18	19
South Atlantic	**694**	**697**	**553**	**582**	**1,211**	**1,420**	**1,485**	**1,749**
Delaware	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0	2
Georgia	0	0	0	0	0	0	0	0
Maryland	0	1	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0
Virginia	8	1	0	26	18	9	29	52
West Virginia	686	695	553	556	1,193	1,411	1,456	1,695
East South Central	**275**	**195**	**132**	**218**	**406**	**413**	**426**	**495**
Alabama	0	0	5	26	80	61	49	63
Kentucky	264	177	111	123	141	126	163	225
Mississippi	9	15	12	31	51	58	90	70
Tennessee	2	3	4	38	134	168	124	137
West South Central	**1,484**	**2,478**	**1,670**	**3,611**	**6,979**	**7,647**	**7,820**	**8,536**
Arkansas	36	44	36	23	82	121	153	164
Louisiana	282	542	539	815	1,520	1,779	1,678	1,414
Oklahoma	434	549	321	638	1,768	2,063	2,182	2,613
Texas	732	1,343	774	2,135	3,609	3,684	3,807	4,345
Mountain	**577**	**451**	**335**	**1,193**	**1,793**	**2,081**	**2,382**	**2,378**
Arizona	1	0	0	0	0	0	0	0
Colorado	116	53	47	300	399	481	583	601
Idaho	0	0	0	0	0	0	0	0
Montana	8	10	74	279	247	252	223	250
Nevada	0	0	0	0	0	0	1	0
New Mexico	374	303	159	517	820	996	1,246	1,106
Utah	23	27	10	19	103	98	116	156
Wyoming	55	58	45	78	224	254	213	265
Pacific	**117**	**75**	**61**	**50**	**54**	**82**	**99**	**120**
Alaska	3	13	5	4	4	3	4	10
California	114	62	56	46	45	77	92	109
Hawaii	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	5	2	3	1
Washington	0	0	0	0	0	0	0	0
Federal Waters	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**

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a. Includes condensate wells for all years except 1960.

Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1982.

TABLE 3-19
NEW-FIELD WILDCAT WELLS DRILLED AND PROPORTION SUCCESSFUL, 1960–1982

Year	Total Drilled	Dry	Productive	Percent Productive
1960	7,320	6,575	745	10.2
1961	6,909	6,164	745	10.8
1962	6,794	6,007	787	11.6
1963	6,570	5,801	769	11.7
1964	6,632	5,931	701	10.6
1965	6,182	5,544	638	10.3
1966	6,158	5,523	635	10.3
1967	5,271	4,727	544	10.3
1968	5,205	4,763	442	8.5
1969	5,956	5,421	535	9.0
1970	5,069	4,576	493	9.7
1971	4,463	4,027	436	9.7
1972	5,086	4,520	566	11.1
1973	4,989	4,288	701	14.1
1974	5,652	4,847	805	14.2
1975	6,104	5,228	876	14.4
1976	5,840	4,854	986	16.9
1977	6,101	5,097	1,004	16.5
1978	6,505	5,522	983	15.1
1979	6,413	5,251	1,162	18.1
1980	7,034	5,694	1,340	19.0
1981	8,052	6,629	1,423	17.7
1982	7,912	6,512	1,400	17.7

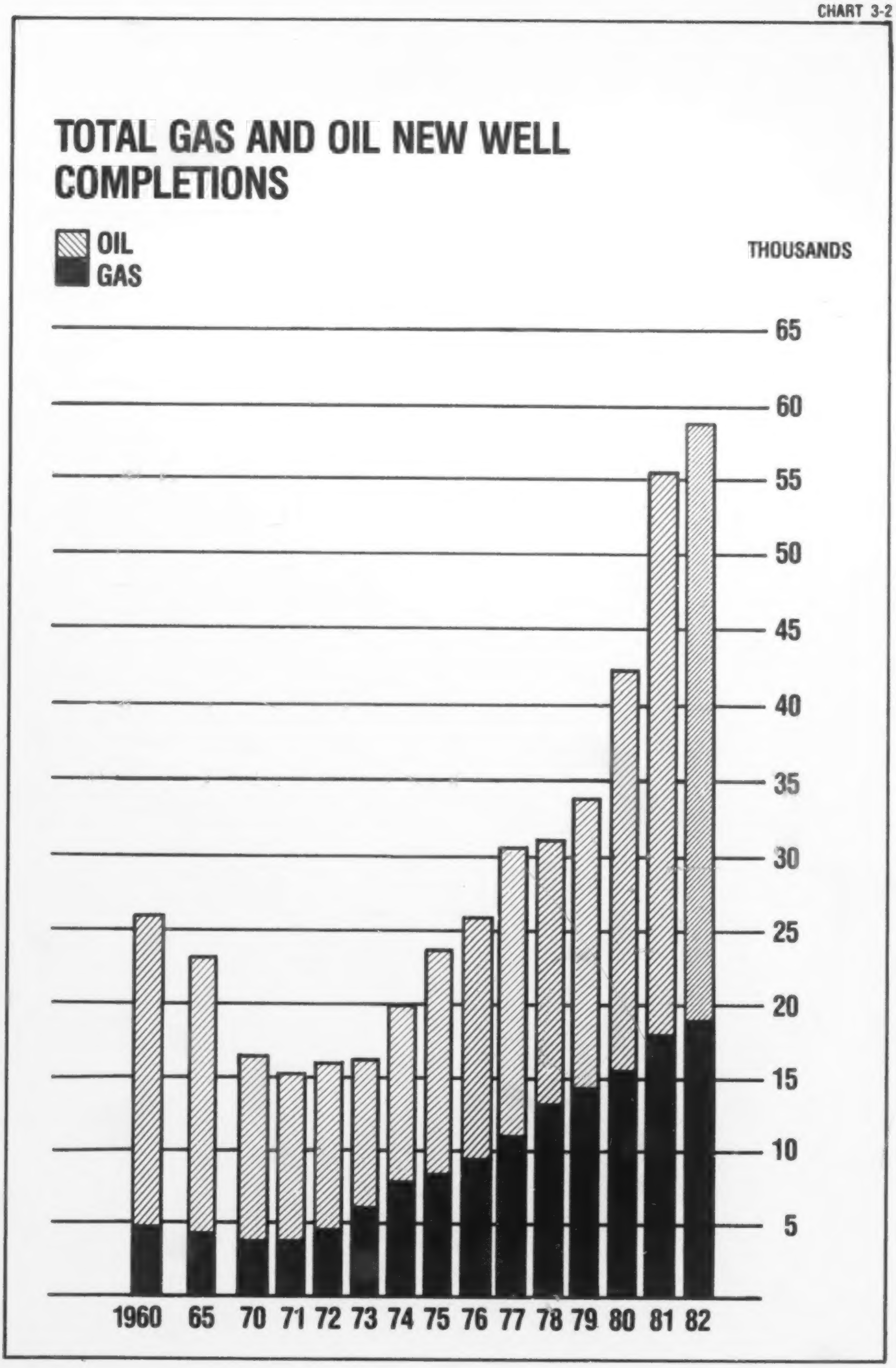
Source: American Petroleum Institute. *Quarterly Review of Drilling Statistics*, Fourth Quarter 1982.

TABLE 3-20
NEW WELL COMPLETIONS, BY TYPE OF WELL, 1960–1982

Year	Total[a]	Oil	Condensate	Gas	Service[a]	Dry
1960	46,751	21,186	1,306	3,952	2,733	17,574
1961	46,962	21,101	749	4,915	3,091	17,106
1962	46,179	21,249	123	5,725	2,400	16,682
1963	43,653	20,288	b	4,751	2,267	16,347
1964	45,236	20,620	b	4,855	2,273	17,488
1965	41,432	18,761	b	4,724	1,922	16,025
1966	37,881	16,447	b	4,167	1,497	15,770
1967	33,630	15,329	b	3,659	1,396	13,246
1968	32,038	14,331	b	3,456	1,439	12,812
1969	33,677	14,368	b	4,083	1,490	13,736
1970	29,341	13,020	b	3,840	1,221	11,260
1971	27,250	11,858	b	3,830	1,399	10,163
1972	28,725	11,306	b	4,928	1,434	11,057
1973	27,551	9,902	b	6,385	959	10,305
1974	32,756	12,784	b	7,240	1,058	11,674
1975	38,732	16,408	b	7,580	1,497	13,247
1976	41,305	17,059	b	9,085	1,540	13,621
1977	46,328	18,912	b	11,378	1,346	14,692
1978	48,434	17,775	b	13,064	1,377	16,218
1979	51,203	19,383	b	14,681	1,387	15,752
1980	62,427	27,026	b	15,730	1,582	18,089
1981	80,408	37,671	b	17,894	1,870	22,973
1982	87,974	40,298	b	18,953	2,174	26,549

a. Excludes stratigraphic and core tests.
b. Included with gas after 1962.
Source: *Oil and Gas Journal* prior to 1968. American Petroleum Institute. *Quarterly Review of Drilling Statistics*, Fourth Quarter 1982.

CHART 3-2



REFERENCE: TABLE 3-20

TABLE 3-21
NEW WELL COMPLETIONS, BY TYPE OF WELL AND STATE, 1982

Division and State	Total*	Oil	Gas	Service*	Dry
United States	**87,974**	**40,298**	**18,953**	**2,174**	**26,549**
New England	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**4,746**	**2,254**	**2,190**	**180**	**122**
New Jersey	0	0	0	0	0
New York	525	55	456	1	13
Pennsylvania	4,221	2,199	1,734	179	109
East North Central	**9,518**	**4,188**	**2,601**	**195**	**2,534**
Illinois	3,142	1,717	10	141	1,274
Indiana	1,051	464	24	29	534
Michigan	810	299	46	17	448
Ohio	4,515	1,708	2,521	8	278
Wisconsin	0	0	0	0	0
West North Central	**10,867**	**4,983**	**874**	**237**	**4,773**
Iowa	0	0	0	0	0
Kansas	9,154	4,108	810	211	4,025
Minnesota	0	0	0	0	0
Missouri	374	248	11	20	95
Nebraska	453	188	9	5	251
North Dakota	816	423	25	1	367
South Dakota	70	16	19	0	35
South Atlantic	**2,171**	**182**	**1,749**	**42**	**198**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	25	8	2	0	15
Georgia	2	0	0	0	2
Maryland	0	0	0	0	0
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	99	22	52	0	25
West Virginia	2,045	152	1,695	42	156
East South Central	**4,325**	**1,546**	**495**	**128**	**2,156**
Alabama	207	24	63	4	116
Kentucky	3,104	1,237	225	124	1,518
Mississippi	622	120	70	0	432
Tennessee	392	165	137	0	90
West South Central	**44,712**	**21,727**	**8,536**	**785**	**13,664**
Arkansas	796	298	164	17	317
Louisiana	5,060	1,547	1,414	52	2,047
Oklahoma	12,011	6,031	2,613	24	3,343
Texas	26,845	13,851	4,345	692	7,957
Mountain	**8,214**	**2,981**	**2,378**	**159**	**2,696**
Arizona	16	7	0	2	7
Colorado	1,990	629	601	3	757
Idaho	5	0	0	0	5
Montana	1,203	422	250	21	510
Nevada	29	3	0	3	23
New Mexico	2,298	724	1,106	65	403
Utah	551	205	156	5	185
Wyoming	2,122	991	265	60	806
Pacific	**3,363**	**2,420**	**120**	**448**	**375**
Alaska	203	178	10	5	10
California	3,136	2,242	109	433	352
Hawaii	0	0	0	0	0
Oregon	8	0	1	0	7
Washington	16	0	0	10	6
Offshore Federal Waters	**58**	**17**	**10**	**0**	**31**

* Excludes stratigraphic and core tests, which totaled 132 in 1982.

Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1982.

TABLE 3-22
HOLES DRILLED AND PROPORTION SUCCESSFUL, BY TYPE OF EXPLORATORY HOLE, 1960–1982

	Outposts-Extensions	New-Pool Wildcats	Deeper-Pool Tests	Shallower-Pool Tests	New-Field Wildcats	Total
1960						
Drilled	2,431	1,342	495	116	7,320	11,704
Dry	1,603	1,000	309	28	6,575	9,515
Productive	828	342	186	88	745	2,189
Percent Productive	34.1	25.5	37.6	75.9	10.2	18.7
1965						
Drilled	1,131	1,707	353	93	6,182	9,466
Dry	805	1,374	242	40	5,544	8,005
Productive	326	333	111	53	638	1,461
Percent Productive	28.8	19.5	31.4	57.0	10.3	15.4
1970						
Drilled	1,228	1,043	260	93	5,069	7,693
Dry	832	808	167	39	4,576	6,422
Productive	396	235	93	54	493	1,271
Percent Productive	32.2	22.5	35.8	58.1	9.7	16.5
1975						
Drilled	1,577	1,112	288	133	6,104	9,214
Dry	905	719	181	38	5,228	7,071
Productive	672	393	107	95	876	2,143
Percent Productive	42.6	35.3	37.2	71.4	14.4	23.3
1976						
Drilled	1,718	1,249	264	163	5,840	9.234
Dry	942	790	159	40	4,854	6,785
Productive	776	459	105	123	986	2,449
Percent Productive	45.2	36.7	39.8	75.5	16.9	26.5
1977						
Drilled	1,914	1,376	366	204	6,101	9,961
Dry	1,040	870	236	32	5,097	7,275
Productive	874	506	130	172	1,004	2,686
Percent Productive	45.7	36.8	35.5	84.3	16.5	27.0
1978						
Drilled	2,024	1,549	380	219	6,505	10,677
Dry	1,180	958	247	42	5,522	7,949
Productive	844	591	133	177	983	2,728
Percent Productive	41.7	38.2	35.0	80.8	15.1	25.6
1979						
Drilled	1,853	1,486	486	246	6,374	10,445
Dry	1,003	841	304	61	5,212	7,421
Productive	850	645	182	185	1,162	3,024
Percent Productive	45.9	43.4	37.5	75.2	18.2	29.0
1980						
Drilled	1,981	1,819	789	293	7,034	11,916
Dry	1,104	952	523	69	5,694	8,342
Productive	877	867	266	224	1,340	3,574
Percent Productive	44.3	47.7	33.7	76.4	19.1	30.0
1981						
Drilled	3,028	2,340	1,299	449	8,052	15,168
Dry	1,541	1,353	907	153	6,629	10,583
Productive	1,487	987	392	296	1,423	4,585
Percent Productive	49.1	42.2	30.2	65.9	17.7	30.2
1982						
Drilled	3,328	2,870	1,782	613	7,914	16,507
Dry	1,864	1,699	1,315	233	6,512	11,623
Productive	1,464	1,171	467	380	1,402	4,884
Percent Productive	44.0	40.8	26.2	62.0	17.7	29.6

Source: Committee on Statistics of Drilling. *American Association of Petroleum Geologists Bulletin*, 1982.

TABLE 5-23
WELLS AND DRY HOLES DRILLED AS EXPLORATORY TESTS, BY STATE AND TYPE OF WELL, 1982

Division and State	Total Drilled	Dry Holes	Producers		
			Total	Oil	Gas
United States	16,470	11,623	4,847	3,283	1,564
New England	0	0	0	0	0
Middle Atlantic	250	40	210	24	186
New Jersey	0	0	0	0	0
New York	40	6	30	1	29
Pennsylvania	214	34	180	23	157
East North Central	1,667	1,260	407	281	126
Illinois	649	521	128	128	0
Indiana	449	364	85	76	9
Michigan	422	347	75	46	29
Ohio	146	28	118	31	87
Wisconsin	0	0	0	0	0
West North Central	3,012	2,325	687	577	110
Iowa	0	0	0	0	0
Kansas	2,110	1,471	639	556	83
Minnesota	0	0	0	0	0
Missouri	82	67	15	15	0
Nebraska	227	180	47	46	1
North Dakota	448	275	173	153	20
South Dakota	35	32	3	3	0
South Atlantic	189	67	122	4	118
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	11	11	0	0	0
Georgia	2	2	0	0	0
Maryland	0	0	0	0	0
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	29	18	11	2	9
West Virginia	147	36	111	2	109
East South Central	1,417	1,000	416	257	159
Alabama	78	59	19	2	17
Kentucky	821	606	215	169	46
Mississippi	282	256	26	18	8
Tennessee	246	80	166	73	93
West South Central	7,089	5,007	2,072	875	1,197
Arkansas	127	114	13	6	7
Louisiana	825	732	93	29	64
Oklahoma	682	390	292	118	174
Texas	5,455	3,781	1,674	698	976
Mountain	2,390	1,676	714	434	280
Arizona	6	5	1	1	0
Colorado	741	506	235	135	100
Idaho	3	3	0	0	0
Montana	427	311	116	77	39
Nevada	38	27	11	1	10
New Mexico	351	216	135	61	74
Utah	172	113	59	31	28
Wyoming	654	497	157	105	52
Pacific	511	380	203	165	40
Alaska	8	6	2	2	0
California	489	359	200	164	36
Hawaii	0	0	0	0	0
Oregon	8	7	1	0	1
Washington	6	6	0	0	0
Offshore Federal Waters	27	27	0	0	0

Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1982.

TABLE 3-24
DRILLING OPERATIONS AND EXPENDITURES, BY TYPE OF WELL, 1980-1981[a]

	Total	Oil	Gas[b]	Dry
		1980		
Wells drilled	62,011	28,553	15,225	18,233
Footage drilled (000)	296,031	117,066	85,820	93,145
Expenditures (000)	$22,800,356	$7,768,437	$8,166,723	$6,865,196
Average depth per well (ft)	4,773	4,099	5,636	5,108
Average cost per well	$ 367,682	$ 272,070	$ 536,402	$ 376,525
Average cost per foot	$ 77.02	$ 66.36	$ 95.16	$ 73.70
		1981		
Wells drilled	80,816	38,725	17,533	24,558
Footage drilled (000)	388,800	161,982	100,258	126,561
Expenditures (000)	$36,665,457	$13,022,804	$12,248,134	$11,394,519
Average depth per well (ft)	4,811	4,183	5,718	5,154
Average cost per well	$ 453,691	$ 336,289	$ 698,576	$ 463,984
Average cost per foot	$ 94.30	$ 80.40	$ 122.17	$ 90.03

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees, but excludes exploration, development and production costs and expenditures for service wells.
b. Includes condensate wells.
Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1982.

TABLE 3-25
OFFSHORE DRILLING OPERATIONS AND EXPENDITURES, BY TYPE OF WELL, 1980-1981[a]

	Total	Oil	Gas[b]	Dry
		1980		
Wells drilled	1,272	317	444	511
Footage drilled (000)	12,503	2,838	4,419	5,246
Expenditures (000)	$3,023,819	$ 844,307	$1,445,738	$1,556,254
Average depth per well (ft)	9,829	8,952	9,952	10,266
Average cost per well	$3,023,819	$2,663,428	$3,256,166	$3,045,507
Average cost per foot	$ 307.62	$ 297.50	$ 327.18	$ 296.63
		1981		
Wells drilled	1,476	415	515	546
Footage drilled (000)	14,422	3,467	5,166	5,787
Expenditures (000)	$5,550,752	$1,074,329	$2,122,170	$2,354,254
Average depth per well (ft)	9,771	8,355	10,035	10,599
Average cost per well	$3,760,672	$2,588,744	$4,120,718	$4,311,820
Average cost per foot	$ 384.88	$ 309.87	$ 410.64	$ 406.82

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees, but excludes exploration, development and production costs and expenditures for service wells.
b. Includes condensate wells.
Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1982.

TABLE 3-26

AVERAGE COST PER FOOT BY TYPE OF WELL, BY DEPTH CLASSES, 1977-1981[a]

Depth Range (in feet)	Total	Oil	Gas	Dry
		1977		
0- 1,249	$ 26.14	$ 26.79	$ 28.23	$ 23.35
1,250- 2,499	23.66	26.00	25.11	18.07
2,500- 3,749	24.69	26.94	29.81	17.00
3,750- 4,999	24.79	29.10	27.73	18.57
5,000- 7,499	33.13	36.01	38.79	25.56
7,500- 9,999	51.18	49.14	58.30	47.56
10,000-12,499	72.03	76.01	81.56	61.30
12,500-14,999	104.56	98.39	107.58	104.19
15,000-17,499	131.14	154.72	134.41	122.30
17,500-19,999	148.16	142.85	156.90	139.24
20,000 and over	193.26	186.16	190.92	197.42
		1978		
0- 1,249	$ 27.92	$ 30.22	$ 26.00	$ 23.65
1,250- 2,499	28.02	30.20	30.53	22.07
2,500- 3,749	28.08	30.75	33.32	19.65
3,750- 4,999	28.54	33.24	32.46	20.80
5,000- 7,499	37.86	42.16	42.49	30.01
7,500- 9,999	59.33	56.16	72.68	51.69
10,000-12,499	91.15	96.61	98.09	81.98
12,500-14,999	118.11	122.35	128.22	107.50
15,000-17,499	150.87	179.18	153.74	140.37
17,500-19,999	195.17	259.96	179.93	201.69
20,000 and over	247.14	184.73	268.66	226.39
		1979		
0- 1,249	$ 31.84	$ 33.31	$ 31.52	$ 28.44
1,250- 2,499	31.86	35.78	32.01	25.19
2,500- 3,749	31.02	34.50	33.64	23.71
3,750- 4,999	32.26	37.68	34.27	25.02
5,000- 7,499	43.81	48.57	48.23	34.97
7,500- 9,999	69.98	67.09	83.64	60.10
10,000-12,499	106.12	112.48	114.04	94.01
12,500-14,999	139.26	145.70	150.77	125.12
15,000-17,499	191.82	186.10	196.77	187.71
17,500-19,999	240.59	140.99	237.83	245.15
20,000 and over	378.62	220.84	382.45	399.21
		1980		
0- 1,249	$ 35.62	$ 37.13	$ 35.61	$ 30.89
1,250- 2,499	36.04	40.11	35.04	28.73
2,500- 3,749	36.82	41.31	41.00	26.37
3,750- 4,999	38.40	44.65	41.09	28.39
5,000- 7,499	51.18	56.22	56.73	40.23
7,500- 9,999	77.09	76.70	89.68	65.71
10,000-12,499	121.97	126.20	129.45	110.52
12,500-14,999	170.50	167.77	179.17	163.04
15,000-17,499	237.23	258.21	233.38	236.34
17,500-19,999	285.63	406.31	300.57	258.49
20,000 and over	396.84	b	396.20	397.63
		1981		
0- 1,249	$ 46.17	$ 46.76	$ 51.62	$ 42.10
1,250- 2,499	42.00	47.92	39.97	31.46
2,500- 3,749	43.09	49.21	46.77	30.82
3,750- 4,999	46.24	54.92	48.09	34.41
5,000- 7,499	63.16	70.74	68.86	49.94
7,500- 9,999	95.86	94.92	109.58	86.32
10,000-12,499	148.80	145.50	163.37	138.05
12,500-14,999	207.53	199.99	228.61	192.20
15,000-17,499	286.38	270.92	314.25	260.55
17,500-19,999	412.30	348.08	433.37	393.12
20,000 and over	509.90	508.40	443.82	575.99

a. Includes all charges for drilling and equipment wells up to and including the "Christmas" trees but excludes exploration, development and production costs and expenditures for service wells.

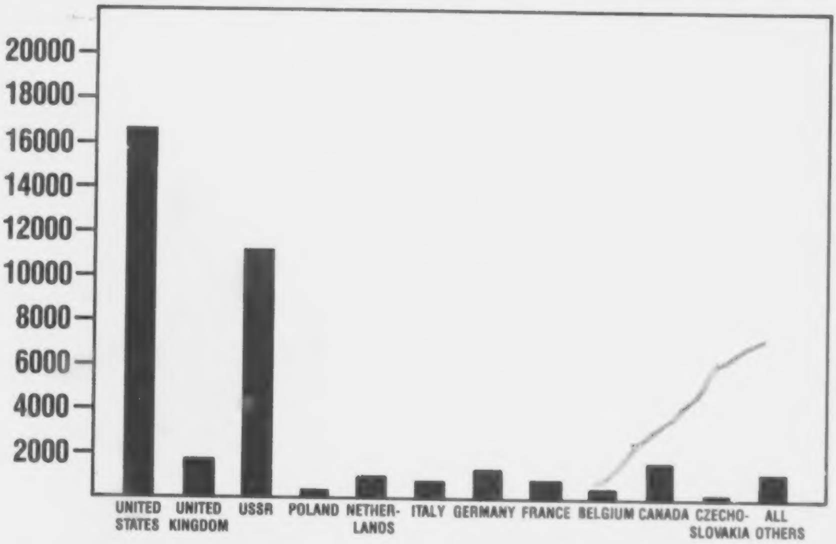
b. No data reported.

Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1982.

CHART 3-3

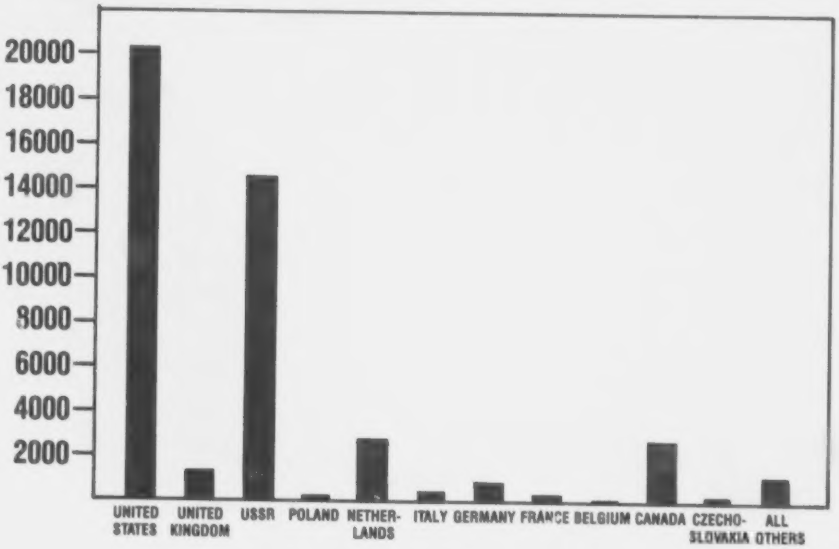
WORLD NATURAL GAS DIRECT FUEL USE* 1981

(TRILLIONS OF BTU)



WORLD NATURAL GAS PRODUCTION 1981

(TRILLIONS OF BTU)



*SEE TABLE 3-27 FOR DEFINITION

TABLE 3-27
WORLD NATURAL GAS STATISTICS
1981

Country	Production	Imports	Exports	Direct Fuel Use[a]	Residential Consumers (000)	Miles of Pipeline (000)
	(Trillions of Btu)					
United States[f]	20,101	903	51	16,950	44,114[d]	968
United Kingdom	1,384	424	—	1,790	15,265	142
USSR	14,409[b]	—	—	11,370[b]	23,042[c]	166[d]
Poland	177	160	—	249	2,110	19[e]
Netherlands	2,820	112	1,657	976	4,550	57
Italy	507	519[c]	—	799	7,250[e]	42[e]
Germany	750	1,530	108	1,395	11,073[d]	116
France	263	774	5	800	8,353	73
Belgium	1	376	12	290	1,837	19
Canada	2,700	8[e]	797[c]	1,691[c]	2,516[c]	82[d]
Czechoslovakia	22	278	—	141[c]	2,154	16
Others	1,407	525	972	640	6,890	32

a. Does not include supplies for production of electric energy; for cracking, reforming and mixing processes; for raw material; for manufacturing of non-energy products.
b. 1980, Revised.
c. 1980.
d. 1979.
e. 1978.
f. Does not cross check with other data in this publication due to different source.
Source: United Nations, *Annual Bulletin of Gas Statistics for Europe*, 1981.

TABLE 3-28
WORLD WELL COMPLETIONS
1980

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	31,033	18,727	19,134	1,723	4,106	74,723	345,681,276
South America	2,462	83	473	273	496	3,787	19,752,687
Far East	522	143	253	29	20	3,003[b]	20,099,753
Western Europe	303	112	168	70	110	763	6,174,129
Middle East	412	23	127	159	36	757	4,819,583
Africa	410	126	177	60	83	856	7,128,724
Oceania	31	24	57	1	2	115	783,315
World Total[a]	35,173	19,238	20,389	2,315	4,853	84,004[b]	404,439,467

a. No drilling data available for Eastern Europe.
b. Total does not add due to inclusion of 2,036 total wells from China.
Source: *World Oil*, August 15, 1981.

WORLD WELL COMPLETIONS
1981

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	39,947	18,533	24,689	3,850	1,226	88,245	404,837,243
South America	2,360	90	520	438	703	4,111	21,040,480
Far East	2,608	310	264	474	92	4,066[b]	26,573,793
Western Europe	400	167	341	81	104	1,093	8,252,936
Middle East	335	17	63	212	62	771[c]	4,941,805
Africa	559	76	208	61	44	948	7,510,350
Oceania	38	56	100	0	6	200	1,503,470
World Total[a]	46,247	19,249	26,185	5,116	2,237	99,434[d]	474,660,077

a. No drilling data available for Eastern Europe.
b. Total does not add due to inclusion of 318 total wells from China.
c. Total does not add due to inclusion of 82 total wells from Syria.
d. Total does not add due to inclusion of total wells from China and Syria.
Source: *World Oil*, August 15, 1982.

WORLD WELL COMPLETIONS
1982

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	40,291	18,884	25,573	2,691	6,447	93,886	436,163,397
South America	3,166	94	638	177	199	4,274	24,001,612
Far East	2,550	294	270	1,005	146	5,128[b]	31,955,549
Western Europe	345	176	337	72	77	1,007	7,819,005
Middle East	365	35	104	231	31	850[b]	5,889,074
Africa	509	70	239	49	79	946	7,736,372
Oceania	110	75	146	1	6	338	2,169,827
World Total[a]	47,336	19,628	27,307	4,226	6,985	106,429[b]	515,734,836

a. No drilling data available for Eastern Europe, Iran and Iraq.
b. Sum of wells by category will not equal total due to unavailable breakdown for China and Syria.
Source: *World Oil*, August 15, 1983.

SECTION 4
UNDERGROUND GAS STORAGE

	1982	% Change 82/81
Number of Pools	404	+ 2.8
Est. Ultimate Capacity (Millions of cubic feet)	7,727,698	+ 1.9
Input to Storage (Millions of cubic feet)	2,316,139	+ 9.1
Output from Storage (Millions of cubic feet)	2,014,322	+ 8.0
Maximum Day Output (Millions of cubic feet)	41,371	+13.5

TABLE 4-1
NUMBER OF UNDERGROUND STORAGE POOLS AND ULTIMATE CAPACITY IN THE UNITED STATES, 1960-1982

Year	Number of Pools	Number of States	Est. Ultimate Capacity (bill. cu. ft.)*
1960	217	20	2,854
1965	293	24	4,086
1966	303	25	4,421
1967	308	25	4,520
1968	315	26	4,783
1969	320	26	4,927
1970	325	26	5,178
1971	333	26	5,575
1972	348	26	6,040
1973	360	26	6,279
1974	367	26	6,360
1975	376	26	6,644
1976	356	26	6,927
1977	385	26	7,223
1978	388	26	7,330
1979	399	26	7,437
1980	401	26	7,488
1981	393	26	7,581
1982	404	26	7,728

*At 14.73 psia and 60°F.
Source: A.G.A. *The Underground Storage of Gas in the United States and Canada*, December 31, 1982.

UNDERGROUND STORAGE

TABLE 4-2
NUMBER OF AQUIFER POOLS AND ULTIMATE CAPACITY IN THE UNITED STATES, 1960-1982[a]

Year	Number of Pools	Number of States	Est. Ultimate Capacity (bill. cu. ft.)[b]
1960	14	8	c
1965	37	9	643
1966	37	9	647
1967	37	9	672
1968	40	10	759
1969	43	10	818
1970	43	9	968
1971	44	8	1,056
1972	46	9	1,278
1973	49	10	1,399
1974	51	10	1,408
1975	52	10	1,459
1976	52	10	1,484
1977	52	10	1,578
1978	53	10	1,593
1979	54	10	1,601
1980	57	10	1,449
1981	56	10	1,423
1982	56	10	1,432

a. These data are also in Table 4-1. b. At 14.73 psia and 60°F. c. Not available. Source: Same as Table 4-1.

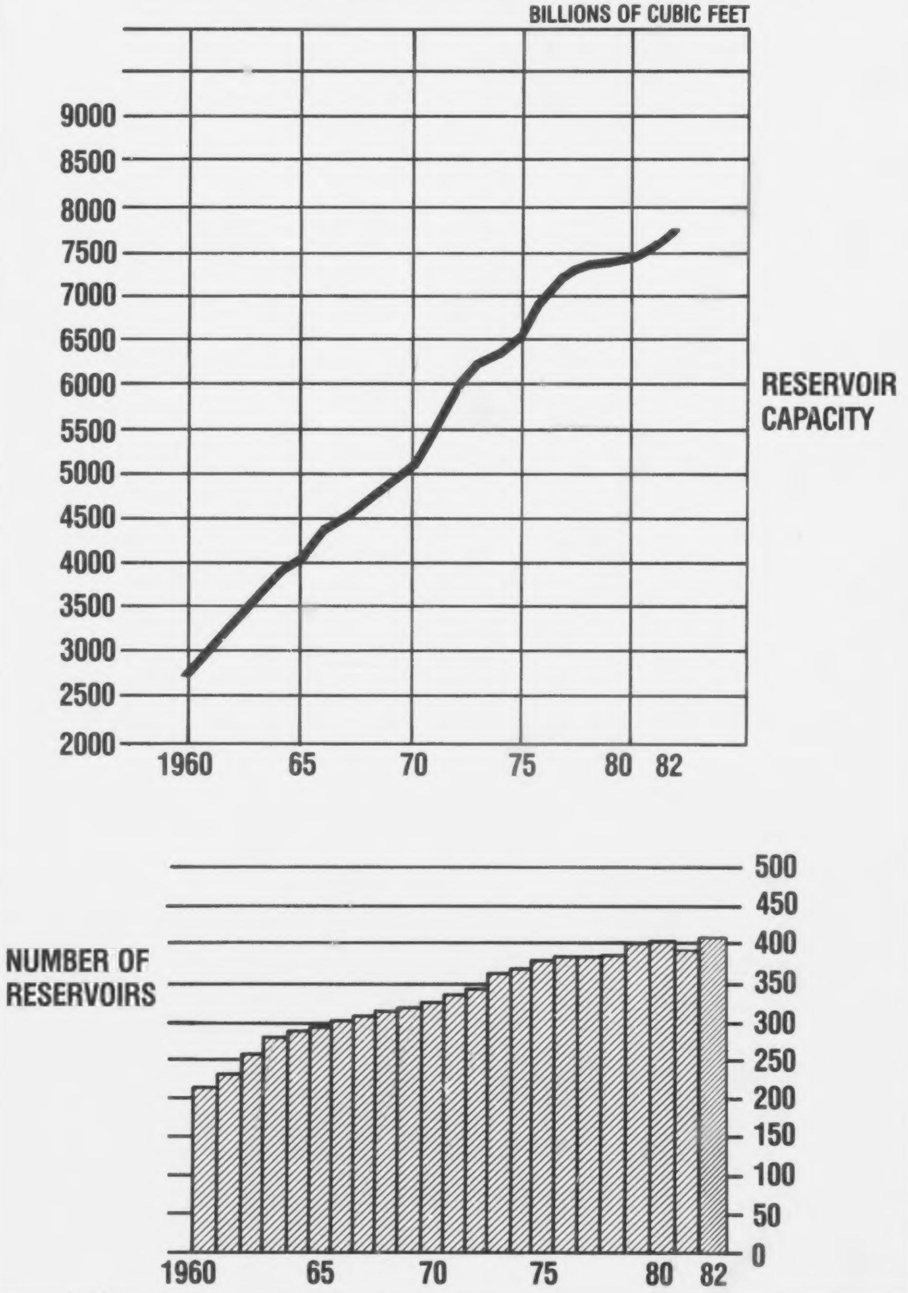
TABLE 4-3
LIQUEFIED NATURAL GAS STORAGE OPERATIONS IN THE UNITED STATES AS OF SEPTEMBER 15, 1982[c]

	Presently Operating	Proposed or Pending Operation
Complete Plants		
Storage Capacity—MMcf	61,755	9,735
Gross Liquefication Capacity—MMcfday	315	46
Sendout Capacity—MMcfday	7,950	817
Number of Facilities	51	4
Satellite Plants		
Storage Capacity—MMcf	6,846	a
Sendout Capacity—MMcfday	887	a
Number of Facilities	50	a
Import Terminals[b]		
Storage Capacity—MMcf	20,250	12,579
Sendout Capacity—MMcfday	2,875	2,324
Number of Facilities	5	2

a. All plants presently operating.
b. Of those presently operating, Algonquin terminal has been utilized for domestic storage since 1973.
c. Not underground storage.
Source: *Pipeline and Gas Journal*, November, 1982.

CHART 4-1

NUMBER AND CAPACITY OF EXISTING UNDERGROUND STORAGE RESERVOIRS



REFERENCE: TABLE 4-1

UNDERGROUND STORAGE

TABLE 4-4
INPUTS, OUTPUTS, AND GAS IN UNDERGROUND STORAGE, BY STATE, 1982

(Millions of cubic feet—14.73 psia at 60°F.)

	Year Ending December 31, 1982					
Division and State	Input to Storage	Output from Storage	Native Gas	Stored Gas	Maximum Stored Gas	Maximum Day Output
United States*	**2,316,139**	**2,014,322**	**1,091,595**	**5,526,435**	**5,899,091**	**41,371**
New England	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**437,027**	**389,155**	**43,834**	**775,977**	**828,611**	**5,714**
New Jersey	0	0	0	0	0	0
New York	58.873	46.714	15.129	136.749	143.396	905
Pennsylvania	378.154	342.441	28.705	639.228	685.215	4.809
East North Central	**810,521**	**711,793**	**371,899**	**1,987,240**	**2,130,473**	**15,061**
Illinois	224.243	200.054	11.523	849.005	885.401	5.006
Indiana	25,001	22.777	19.296	88.911	92.796	553
Michigan	365,677	337.811	256.133	595.833	673.855	6.344
Ohio	195,600	151.151	84.947	453.491	478.421	3.158
Wisconsin	0	0	0	0	0	0
West North Central	**169,753**	**112,029**	**47,765**	**500,582**	**527,254**	**2,330**
Iowa	61.012	49.250	0	244.427	258.078	709
Kansas	95.282	53.866	29.448	163.918	174.585	1.041
Minnesota	1.597	1.237	0	6.028	6.126	53
Missouri	4.407	3.927	0	29.286	29.298	360
Nebraska	7.455	3.749	18.317	56.923	59.167	167
North Dakota	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
South Atlantic	**179,204**	**153,405**	**66,212**	**462,242**	**470,897**	**3,167**
Delaware	0	0	0	0	0	0
Dist. of Columbia	0	0	0	0	0	0
Florida	0	0	0	0	0	0
Georgia	0	0	0	0	0	0
Maryland	19.539	19.009	32.456	28.947	29.620	313
North Carolina	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0
Virginia	0	0	0	0	0	0
West Virginia	159.665	134.396	33.756	433.295	441.277	2.854
East South Central	**108,209**	**104,282**	**107,250**	**184,732**	**203,197**	**2,422**
Alabama	0	0	0	0	0	0
Kentucky	64.654	56.682	79.927	117.510	125.017	1.287
Mississippi	43.555	47.600	27.323	67.222	78.180	1.135
Tennessee	0	0	0	0	0	0
West South Central	**404,205**	**348,109**	**202,845**	**1,015,725**	**1,077,108**	**7,154**
Arkansas	1.864	1.543	25.290	10.734	10.818	89
Louisiana	183.142	159.147	74.463	425.297	463.867	2.309
Oklahoma	105.531	86.272	29.162	315.938	329.308	2.076
Texas	113.668	101.147	73.930	263.756	273.115	2.680
Mountain	**93,379**	**50,965**	**98,697**	**323,313**	**336,099**	**1,097**
Arizona	0	0	0	0	0	0
Colorado	25,129	25.115	19.129	47.811	56.256	660
Idaho	0	0	0	0	0	0
Montana	25.180	18.721	47.667	165.938	169.248	265
Nevada	0	0	0	0	0	0
New Mexico	19.790	2.095	10.600	33.815	34.127	43
Utah	1.426	1.148	0	5.035	5.035	19
Wyoming	21.854	3.886	21.301	70.714	71.433	110
Pacific	**113,841**	**144,584**	**153,093**	**276,624**	**325,452**	**4,426**
Alaska	0	0	0	0	0	0
California	107.537	137.191	153.093	245.052	292.462	4.143
Hawaii	0	0	0	0	0	0
Oregon	0	0	0	0	0	0
Washington	6.304	7.393	0	31,572	32.990	283

*Totals may not add due to rounding.

Source: Same as Table 4-1.

TABLE 4-5
NUMBER OF POOLS, WELLS, COMPRESSOR STATIONS, AND HORSEPOWER IN UNDERGROUND STORAGE FIELDS, BY STATE, 1980-1982

	Number of Pools			Number of Active Wells		
Division and State	1980	1981	1982	1980	1981	1982
(1) **United States**	**401**	**393**	**404**	**17,559**	**17,989**	**18,170**
(2) **New England**	**0**	**0**	**0**	**0**	**0**	**0**
(3) **Middle Atlantic**	**93**	**83**	**83**	**2,848**	**2,994**	**2,993**
(4) New Jersey	0	0	0	0	0	0
(5) New York	20	21	21	767	820	831
(6) Pennsylvania	73	62	62	2,081	2,174	2,162
(7) **East North Central**	**132**	**134**	**142**	**8,691**	**8,933**	**8,980**
(8) Illinois	34	34	35	1,588	1,752	1,758
(9) Indiana	30	30	30	960	958	965
(10) Michigan	45	47	54	2,920	2,957	2,978
(11) Ohio	23	23	23	3,223	3,266	3,279
(12) Wisconsin	0	0	0	0	0	0
(13) **West North Central**	**30**	**30**	**31**	**1,363**	**1,364**	**1,419**
(14) Iowa	9	9	9	424	424	426
(15) Kansas	17	17	18	744	745	798
(16) Minnesota	1	1	1	61	61	61
(17) Missouri	1	1	1	82	82	82
(18) Nebraska	2	2	2	52	52	52
(19) North Dakota	0	0	0	0	0	0
(20) South Dakota	0	0	0	0	0	0
(21) **South Atlantic**	**38**	**38**	**38**	**1,605**	**1,614**	**1,642**
(22) Delaware	0	0	0	0	0	0
(23) District of Columbia	0	0	0	0	0	0
(24) Florida	0	0	0	0	0	0
(25) Georgia	0	0	0	0	0	0
(26) Maryland	1	1	1	80	82	82
(27) North Carolina	0	0	0	0	0	0
(28) South Carolina	0	0	0	0	0	0
(29) Virginia	0	0	0	0	0	0
(30) West Virginia	37	37	37	1,525	1,532	1,560
(31) **East South Central**	**27**	**26**	**26**	**1,315**	**1,290**	**1,291**
(32) Alabama	0	0	0	0	0	0
(33) Kentucky	23	22	22	1,214	1,189	1,190
(34) Mississippi	4	4	4	101	101	101
(35) Tennessee	0	0	0	0	0	0
(36) **West South Central**	**44**	**46**	**47**	**851**	**921**	**943**
(37) Arkansas	5	5	5	23	23	23
(38) Louisiana	7	8	8	272	331	341
(39) Oklahoma	14	14	14	300	300	300
(40) Texas	18	19	20	256	267	279
(41) **Mountain**	**26**	**25**	**26**	**392**	**376**	**404**
(42) Arizona	0	0	0	0	0	0
(43) Colorado	8	8	8	155	174	174
(44) Idaho	0	0	0	0	0	0
(45) Montana	5	5	5	139	139	139
(46) Nevada	0	0	0	0	0	0
(47) New Mexico	3	2	3	50	15	42
(48) Utah	2	2	2	15	15	17
(49) Wyoming	8	8	8	33	33	32
(50) **Pacific**	**11**	**11**	**11**	**494**	**497**	**498**
(51) Alaska	0	0	0	0	0	0
(52) California	9	9	9	417	420	421
(53) Hawaii	0	0	0	0	0	0
(54) Oregon	0	0	0	0	0	0
(55) Washington	2	2	2	77	77	77

Source: Same as Table 4-1.

UNDERGROUND STORAGE

TABLE 4-5 (Continued)
NUMBER OF POOLS, WELLS, COMPRESSOR STATIONS, AND HORSEPOWER IN UNDERGROUND STORAGE FIELDS, BY STATE, 1980-1982

Number of Compressor Stations			Total HP Installed in Compressor Stations			
1980	1981	1982	1980	1981	1982	
285	**294**	**301**	**1,559,708**	**1,614,998**	**1,657,669**	(1)
0	**0**	**0**	**0**	**0**	**0**	(2)
62	**60**	**62**	**239,950**	**248,645**	**251,800**	(3)
0	0	0	0	0	0	(4)
12	13	14	17,990	26,850	38,550	(5)
50	47	48	221,960	221,795	213,250	(6)
87	**92**	**93**	**632,661**	**638,276**	**644,711**	(7)
28	29	29	220,125	217,070	216,830	(8)
17	17	17	19,551	19,551	19,476	(9)
24	28	29	313,650	322,020	328,770	(10)
18	18	18	79,335	79,635	79,635	(11)
0	0	0	0	0	0	(12)
17	**19**	**20**	**77,315**	**79,295**	**94,295**	(13)
4	4	4	37,680	37,860	37,860	(14)
9	11	12	19,435	19,435	34,435	(15)
1	1	1	2,400	2,400	2,400	(16)
1	1	1	8,850	8,850	8,850	(17)
2	2	2	8,950	10,750	10,750	(18)
0	0	0	0	0	0	(19)
0	0	0	0	0	0	(20)
20	**20**	**20**	**91,410**	**91,310**	**91,310**	(21)
0	0	0	0	0	0	(22)
0	0	0	0	0	0	(23)
0	0	0	0	0	0	(24)
0	0	0	0	0	0	(25)
1	1	1	11,000	11,000	11,000	(26)
0	0	0	0	0	0	(27)
0	0	0	0	0	0	(28)
0	0	0	0	0	0	(29)
19	19	19	80,410	80,310	80,310	(30)
20	**20**	**20**	**74,260**	**74,260**	**73,960**	(31)
0	0	0	0	0	0	(32)
17	17	17	38,460	38,460	38,460	(33)
3	3	3	35,800	35,800	35,500	(34)
0	0	0	0	0	0	(35)
43	**46**	**48**	**252,124**	**288,124**	**296,625**	(36)
5	6	6	1,470	1,470	1,470	(37)
7	8	8	109,040	137,040	137,040	(38)
11	11	11	80,569	80,569	80,450	(39)
20	21	23	61,045	69,045	77,665	(40)
25	**26**	**27**	**64,758**	**67,858**	**77,738**	(41)
0	0	0	0	0	0	(42)
6	7	7	28,950	30,950	30,800	(43)
0	0	0	0	0	0	(44)
6	6	6	23,440	23,440	23,440	(45)
0	0	0	0	0	0	(46)
4	4	5	3,350	3,350	11,180	(47)
2	2	2	1,200	1,200	1,200	(48)
7	7	7	7,818	8,918	11,118	(49)
11	**11**	**11**	**127,230**	**127,230**	**127,230**	(50)
0	0	0	0	0	0	(51)
10	10	10	115,430	115,430	115,430	(52)
0	0	0	0	0	0	(53)
0	0	0	0	0	0	(54)
1	1	1	11,800	11,800	11,800	(55)

TABLE 6-8
ULTIMATE CAPACITY OF EXISTING RESERVOIRS, BY STATE, 1982[a]

(Millions of cubic feet—14.73 psia at 60°F.)

Division and State	Cushion Gas			Working Gas	Ultimate Reservoir Capacity
	Native	Injected	Total		
United States[b]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New England	0	0	0	0	0
Connecticut	0	0	0	0	0
Maine	0	0	0	0	0
Massachusetts	0	0	0	0	0
New Hampshire	0	0	0	0	0
Rhode Island	0	0	0	0	0
Vermont	0	0	0	0	0
Middle Atlantic	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
New Jersey	0	0	0	0	0
New York	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pennsylvania	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
East North Central	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Illinois	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Indiana	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Michigan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ohio	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Wisconsin	0	0	0	0	0
West North Central	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Iowa	0	[illegible]	[illegible]	[illegible]	[illegible]
Kansas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Minnesota	0	[illegible]	[illegible]	[illegible]	[illegible]
Missouri	0	[illegible]	[illegible]	[illegible]	[illegible]
Nebraska	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Dakota	0	0	0	0	0
South Dakota	0	0	0	0	0
South Atlantic	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Delaware	0	0	0	0	0
Dist. of Col.	0	0	0	0	0
Florida	0	0	0	0	0
Georgia	0	0	0	0	0
Maryland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	0	0	0	0	0
West Virginia	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
East South Central	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Alabama	0	0	0	0	0
Kentucky	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mississippi	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Tennessee	0	0	0	0	0
West South Central	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arkansas	[illegible]	0	[illegible]	[illegible]	[illegible]
Louisiana	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Oklahoma	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Texas	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mountain	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Arizona	0	0	0	0	0
Colorado	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Idaho	0	0	0	0	0
Montana	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nevada	0	0	0	0	0
New Mexico	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Utah	0	[illegible]	[illegible]	[illegible]	[illegible]
Wyoming	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pacific	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Alaska	0	0	0	0	0
California	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hawaii	0	0	0	0	0
Oregon	0	0	0	0	0
Washington	0	[illegible]	[illegible]	[illegible]	[illegible]

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[a] In some states or regions, the difference between the sum of the components and Ultimate Reservoir Capacity represents unused capacity.

[b] Totals may not add due to rounding.

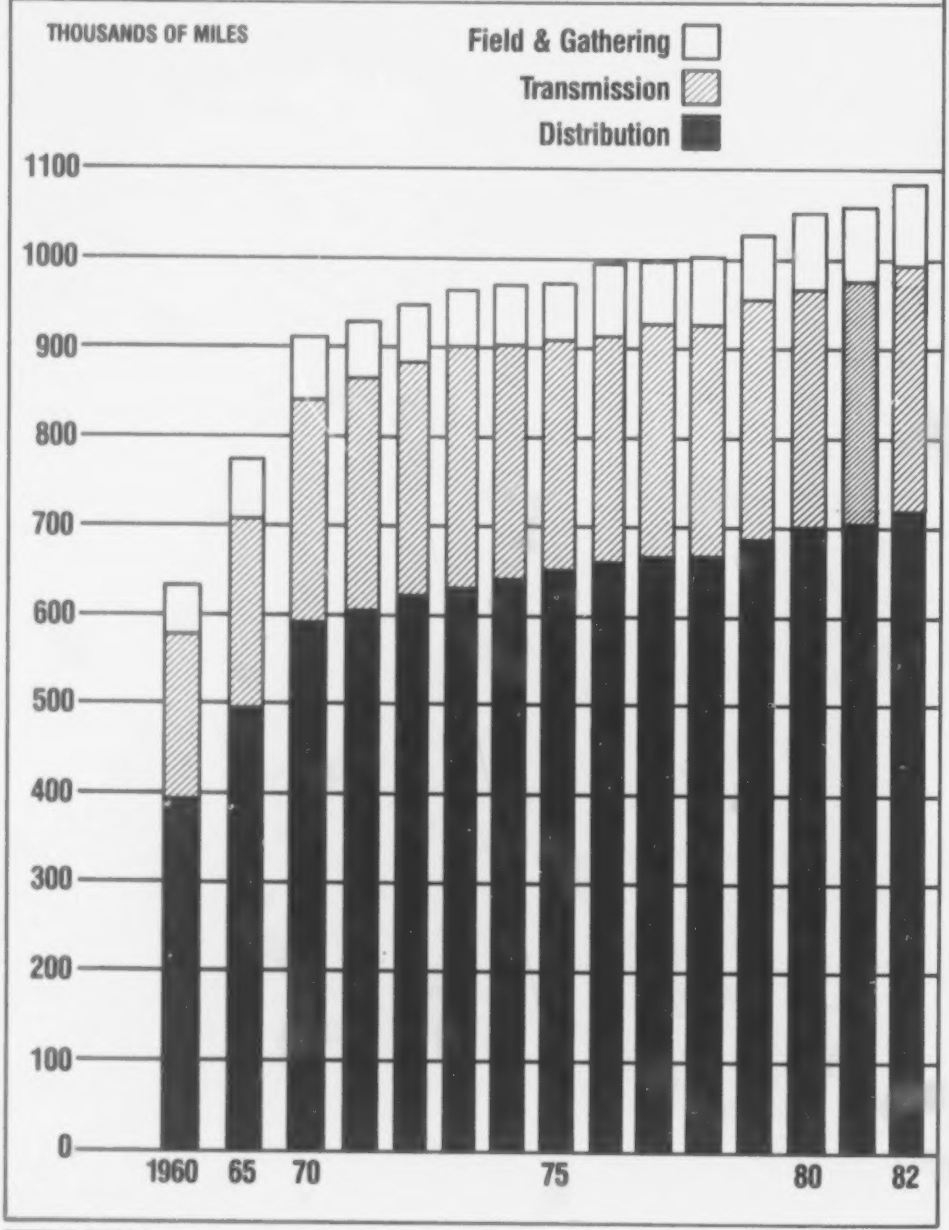
Source: Same as Table 6-1.

SECTION 5
DISTRIBUTION AND TRANSMISSION

	1982	% Change 82/81
Miles of Pipeline		
(Thousands)		
Total	1,083.1	+ 1.2
Field & Gathering	90.5	+ 5.0
Transmission	271.7	+ 0.8
Distribution	720.9	+ 1.0
Miles Installed		
(Thousands)	17.8	−13.6

CHART 5-1

GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN



REFERENCE: TABLE 5-1

DISTRIBUTION AND TRANSMISSION

TABLE 5-1
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY TYPE, 1960-1982[a]

(Thousands)

Year	Total	Field and Gathering	Transmission Pipeline[b]	Distribution Main
1960	630.9	55.8	183.7	391.4
1961	659.0	56.7	191.9	410.4
1962	683.2	58.7	196.4	428.1
1963	709.9	60.7	200.9	448.3
1964	736.2	61.0	205.4	469.8
1965	767.5	61.7	211.3	494.5
1966	799.6	63.0	217.0	519.6
1967	828.3	63.7	225.4	539.2
1968	861.6	64.4	234.5	562.7
1969	891.6	64.9	248.1	578.6
1970	913.3	66.3	252.2	594.8
1971	931.4	66.2	254.8	610.4
1972	948.1	66.9	258.1	623.1
1973	962.9	65.9	263.1	633.8
1974	974.1	66.4	262.2	645.6
1975	979.3	68.5	262.6	648.2
1976	987.7	70.3	258.2	659.1
1977	998.9	71.5	260.5	666.9
1978	1013.0	74.9	260.6	677.5
1979	1029.8	77.8	263.5	688.5
1980R	1051.8	83.5	266.5	701.8
1981R	1069.8	86.2	269.5	714.1
1982	1083.1	90.5	271.7	720.9
Steel	920.4	89.5	266.4	564.5
Plastic[c]	100.9	0.5	4.5	95.9
Other	61.8	0.5	0.8	60.5

a. Includes data for Alaska subsequent to 1960; excludes service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of each year.

b. Includes 5.0 thousand miles of Underground Storage pipe in 1975, 5.3 thousand miles in 1976, 5.2 thousand miles in 1977, 6.0 thousand miles in 1978, 5.7 thousand miles in 1979, 6.2 thousand miles in 1980, 7.8 thousand miles in 1981, 5.5 thousand miles in 1982, some of which was formerly included in Field and Gathering pipe.

c. Includes fiberglass. R-Revised

TABLE 5-2
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY STATE, 1960-1982[a]

Division and State	1960	1965	1970	1975	1980R	1981R	1982
United States	**630,950**	**767,520**	**913,267**	**979,263**	**1,051,774**	**1,069,864**	**1,083,162**
New England	**19,140**	**22,090**	**25,686**	**26,580**	**27,794**	**27,492**	**27,650**
Connecticut	4,300	4,960	5,728	5,991	6,710	6,223	6,275
Maine	390	390	705	461	395	389	408
Massachusetts	11,910	13,740	15,609	16,452	16,719	16,918	16,990
New Hampshire	630	800	1,041	1,093	1,163	1,189	1,207
Rhode Island	1,720	1,990	2,299	2,248	2,403	2,402	2,399
Vermont	190	210	304	335	404	371	371
Middle Atlantic	**92,600**	**102,580**	**111,644**	**113,993**	**116,439**	**117,344**	**118,240**
New Jersey	15,140	18,320	21,052	22,077	22,838	23,107	23,406
New York	33,020	36,580	39,955	40,535	41,394	41,682	41,948
Pennsylvania	44,440	47,680	50,637	51,381	52,207	52,555	52,886
East North Central	**113,420**	**147,640**	**178,268**	**190,172**	**200,361**	**202,438**	**203,639**
Illinois	27,770	38,750	46,683	50,252	53,375	53,794	54,020
Indiana	14,800	20,240	25,264	27,267	28,227	28,845	29,246
Michigan	21,860	30,370	37,699	40,203	44,100	44,556	44,766
Ohio	40,150	44,690	49,393	51,505	52,667	53,021	53,283
Wisconsin	8,840	13,590	19,229	20,945	21,992	22,222	22,324
West North Central	**67,640**	**82,250**	**99,536**	**106,134**	**112,901**	**113,810**	**114,909**
Iowa	9,970	13,630	16,654	17,273	17,892	18,112	18,163
Kansas	25,860	28,780	32,802	34,280	36,893	37,425	37,718
Minnesota	8,090	10,680	14,162	15,264	16,720	17,432	17,532
Missouri	11,950	15,150	18,654	20,897	21,854	21,420	21,523
Nebraska	8,910	10,300	12,627	13,333	14,079	13,826	14,195
North Dakota	1,100	1,560	2,332	2,533	2,854	2,973	3,066
South Dakota	1,760	2,150	2,305	2,554	2,609	2,622	2,712
South Atlantic	**59,100**	**74,180**	**92,738**	**100,496**	**103,960**	**106,317**	**107,554**
Delaware	830	1,160	1,270	1,322	1,336	1,454	1,456
District of Columbia	1,160	1,150	1,164	1,163	1,157	1,162	1,162
Florida	6,400	8,330	11,435	13,100	12,902	13,069	13,248
Georgia	10,580	14,600	19,549	22,679	24,676	25,130	25,499
Maryland	5,400	6,710	7,986	8,534	8,704	8,764	8,801
North Carolina	4,830	7,080	10,605	11,100	11,842	12,420	12,631
South Carolina	3,320	6,090	8,514	9,667	9,825	10,567	10,731
Virginia	6,490	8,190	10,451	10,944	11,226	11,421	11,490
West Virginia	20,090	20,870	21,764	21,987	22,292	22,330	22,536
East South Central	**44,930**	**54,390**	**65,441**	**70,345**	**73,807**	**75,353**	**75,877**
Alabama	11,380	13,860	16,607	17,832	19,556	19,866	19,958
Kentucky	13,130	15,470	18,295	19,816	19,981	20,289	20,423
Mississippi	11,420	13,460	16,403	17,056	17,911	18,153	18,311
Tennessee	9,000	11,600	14,136	15,641	16,359	17,045	17,185
West South Central	**127,120**	**150,260**	**182,752**	**194,820**	**216,394**	**221,883**	**226,834**
Arkansas	10,380	13,060	16,429	17,474	18,312	18,401	18,503
Louisiana	24,970	30,310	36,921	38,855	41,689	42,885	43,797
Oklahoma	19,590	23,850	28,532	32,798	37,132	38,635	40,046
Texas	72,180	83,040	100,870	105,693	119,261	121,962	124,488
Mountain	**44,940**	**59,000**	**71,848**	**83,184**	**97,391**	**100,631**	**102,938**
Arizona	9,630	11,120	13,379	15,197	16,669	16,915	16,988
Colorado	8,080	12,240	15,870	19,192	23,108	23,956	24,678
Idaho	1,490	2,770	3,226	3,785	4,177	4,435	4,464
Montana	5,120	5,970	6,324	7,435	8,822	8,538	8,699
Nevada	660	1,940	2,470	2,945	3,554	3,658	3,794
New Mexico	13,160	15,410	19,050	21,657	24,581	25,474	26,069
Utah	3,400	4,940	5,609	6,577	7,846	8,504	8,596
Wyoming	3,400	4,610	5,920	6,396	8,634	9,151	9,650
Pacific	**62,060**	**75,130**	**85,354**	**93,539**	**102,727**	**104,596**	**105,521**
Alaska	b	250	667	868	1,186	1,212	1,213
California	52,280	60,650	66,328	72,493	79,625	80,844	81,545
Hawaii	440	490	530	581	587	587	588
Oregon	3,940	6,360	8,014	8,838	9,709	10,070	10,139
Washington	5,400	7,380	9,815	10,759	11,620	11,883	12,036

a. Includes field, gathering, underground storage, transmission and distribution main but excludes service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of year.
b. Not available.
R—Revised.

DISTRIBUTION AND TRANSMISSION

TABLE 5-3
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY TYPE AND BY STATE, 1982[a]

Division and State	Total	Field and Gathering	Transmission Pipeline[b]	Distribution Main
United States	**1,083,162**	**90,501**	**271,732**	**720,929**
New England	**27,650**	**0**	**1,653**	**25,997**
Connecticut	6,275	0	506	5,769
Maine	408	0	80	328
Massachusetts	16,990	0	828	16,162
New Hampshire	1,207	0	131	1,076
Rhode Island	2,399	0	53	2,346
Vermont	371	0	55	316
Middle Atlantic	**118,240**	**6,575**	**17,233**	**94,432**
New Jersey	23,406	0	1,400	22,006
New York	41,948	539	3,906	37,503
Pennsylvania	52,886	6,036	11,927	34,923
East North Central	**203,639**	**4,436**	**36,508**	**162,695**
Illinois	54,020	95	10,043	43,882
Indiana	29,246	234	5,627	23,385
Michigan	44,766	264	7,473	37,029
Ohio	53,283	3,843	10,162	39,278
Wisconsin	22,324	0	3,203	19,121
West North Central	**114,909**	**9,314**	**40,028**	**65,567**
Iowa	18,163	88	6,013	12,062
Kansas	37,718	8,962	15,882	12,874
Minnesota	17,532	0	4,175	13,357
Missouri	21,523	25	4,288	17,210
Nebraska	14,195	46	7,549	6,600
North Dakota	3,066	180	1,162	1,724
South Dakota	2,712	13	959	1,740
South Atlantic	**107,554**	**9,490**	**21,717**	**76,347**
Delaware	1,456	0	342	1,114
District of Columbia	1,162	0	23	1,139
Florida	13,248	19	2,943	10,286
Georgia	25,499	11	5,065	20,423
Maryland	8,801	24	827	7,950
North Carolina	12,631	0	2,323	10,308
South Carolina	10,731	0	2,369	8,362
Virginia	11,490	100	2,495	8,895
West Virginia	22,536	9,336	5,330	7,870
East South Central	**75,877**	**4,253**	**27,188**	**44,436**
Alabama	19,958	7	5,275	14,676
Kentucky	20,423	3,980	6,979	9,464
Mississippi	18,311	264	9,562	8,485
Tennessee	17,185	2	5,372	11,811
West South Central	**226,834**	**34,579**	**86,661**	**105,594**
Arkansas	18,503	1,117	6,678	10,708
Louisiana	43,797	2,904	24,254	16,639
Oklahoma	40,046	11,896	2,615	15,535
Texas	124,488	18,662	43,114	62,712
Mountain	**102,938**	**20,896**	**29,207**	**52,835**
Arizona	16,988	2	5,108	11,878
Colorado	24,678	3,773	6,856	14,049
Idaho	4,464	0	1,525	2,939
Montana	8,699	2,380	3,089	3,230
Nevada	3,794	6	1,359	2,429
New Mexico	26,069	10,673	6,751	8,645
Utah	8,596	895	963	6,738
Wyoming	9,650	3,167	3,556	2,927
Pacific	**105,521**	**958**	**11,537**	**93,026**
Alaska	1,213	7	211	995
California	81,545	932	7,951	72,662
Hawaii	588	0	0	588
Oregon	10,139	19	1,401	8,719
Washington	12,036	0	1,974	10,062

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a. Excludes 417,592 miles of service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of year.
b. Includes 5,515 miles of underground storage pipe.

TABLE 5-4
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN INSTALLED DURING 1982, BY TYPE, BY STATE AND BY TYPE OF PIPE[a]

		Field and Gathering	Transmission Pipeline	Distribution Main			
Division and State	Total[d]	Steel	Steel[b]	Total	Steel	Plastic[c]	Other
United States	**17,807**	**3,189**	**2,888**	**11,730**	**4,081**	**7,514**	**135**
New England	**279**	**0**	**6**	**273**	**120**	**148**	**5**
Connecticut	90	0	0	90	32	58	0
Maine	19	0	0	19	8	6	5
Massachusetts	114	0	6	108	47	61	0
New Hampshire	36	0	0	36	26	10	0
Rhode Island	20	0	0	20	7	13	0
Vermont	0	0	0	0	0	0	0
Middle Atlantic	**1,598**	**78**	**182**	**1,338**	**414**	**855**	**69**
New Jersey	426	0	41	385	130	255	0
New York	508	5	33	470	140	324	6
Pennsylvania	664	73	108	483	144	276	63
East North Central	**3,262**	**60**	**202**	**3,000**	**937**	**2,013**	**50**
Illinois	948	0	12	936	674	262	0
Indiana	1,268	1	68	1,199	49	1,109	41
Michigan	319	29	50	240	10	221	9
Ohio	400	30	50	320	148	172	0
Wisconsin	327	0	22	305	56	249	0
West North Central	**1,619**	**183**	**124**	**1,312**	**518**	**794**	**0**
Iowa	130	0	5	125	21	104	0
Kansas	493	134	42	317	153	164	0
Minnesota	278	0	39	239	33	206	0
Missouri	174	0	1	173	45	128	0
Nebraska	394	1	16	377	251	126	0
North Dakota	103	47	7	49	0	49	0
South Dakota	47	1	14	32	15	17	0
South Atlantic	**1,452**	**57**	**171**	**1,224**	**833**	**381**	**10**
Delaware	10	0	0	10	1	6	3
Dist. of Columbia	7	0	0	7	3	4	0
Florida	215	0	27	188	128	60	0
Georgia	395	0	50	345	339	6	0
Maryland	64	0	5	59	42	17	0
North Carolina	408	0	29	379	254	125	0
South Carolina	141	0	28	113	28	85	0
Virginia	89	0	25	64	23	34	7
West Virginia	123	57	7	59	15	44	0
East South Central	**802**	**75**	**134**	**593**	**319**	**273**	**1**
Alabama	166	0	43	123	32	90	1
Kentucky	178	65	13	100	94	6	0
Mississippi	186	10	71	105	42	63	0
Tennessee	272	0	7	265	151	114	0
West South Central	**4,267**	**1,227**	**1,435**	**1,605**	**337**	**1,268**	**0**
Arkansas	104	15	23	66	10	56	0
Louisiana	921	98	602	221	131	90	0
Oklahoma	933	602	57	274	8	266	0
Texas	2,309	512	753	1,044	188	856	0
Mountain	**2,981**	**1,456**	**593**	**932**	**254**	**678**	**0**
Arizona	110	0	11	99	29	70	0
Colorado	978	507	86	385	97	288	0
Idaho	33	0	0	33	1	32	0
Montana	164	104	2	58	5	53	0
Nevada	138	1	68	69	16	53	0
New Mexico	671	305	273	93	65	28	0
Utah	194	75	4	115	0	115	0
Wyoming	693	464	149	80	41	39	0
Pacific	**1,547**	**53**	**41**	**1,453**	**349**	**1,104**	**0**
Alaska	1	0	0	1	0	1	0
California	1,223	53	39	1,131	163	968	0
Hawaii	6	0	0	6	2	4	0
Oregon	128	0	2	126	126	0	0
Washington	189	0	0	189	58	131	0

a. Excludes service pipe. Data not adjusted to common diameter equivalent.
b. Includes 75 miles of underground storage pipe.
c. Includes fiberglass.
d. Does not include 66 miles of plastic and other pipe classified as field and gathering and transmission pipe.

TABLE 5-5
GAS UTILITY INDUSTRY REQUIREMENTS OF STEEL PIPE FOR NEW CONSTRUCTION AND MAINTENANCE AND REPAIR BY SIZE OF PIPE, 1982

(Miles)

Size of Pipe	Total	New Construction	Maintenance Repair
Normal Pipe Size—Inches			
3/4 and less	2,441.7	2,245.9	195.8
1	497.2	344.7	152.5
1 1/4	703.9	626.7	77.2
1 1/2	30.3	13.6	16.7
Outside Diameter—Inches			
2 3/8	2,415.1	1,727.2	687.9
3 1/2	167.6	149.1	18.5
4 1/2	3,077.9	2,647.5	430.4
6 5/8	2,329.1	1,952.5	376.6
8 3/4	981.7	886.0	95.7
10 3/4	598.6	569.5	29.1
12 3/4	608.0	563.5	44.5
14	21.1	21.1	0.0
16	570.3	511.6	58.7
18	61.0	61.0	0.0
20	357.9	353.5	4.4
22	0.0	0.0	0.0
24	31.0	29.0	2.0
26	4.0	1.0	3.0
30	55.0	54.0	1.0
34	0.0	0.0	0.0
36	64.0	62.0	2.0
42	0.0	0.0	0.0
Other Sizes	1.0	1.0	0.0
Total	**15,016.4**	**12,820.4**	**2,196.0**

TABLE 5-6
GAS UTILITY INDUSTRY INSTALLED COMPRESSOR HORSEPOWER, 1960-1982

(Thousands)

Year	Total	Transmission
1960	7,843	6,359
1961	8,169	6,696
1962	8,609	7,064
1963	8,818	7,261
1964	9,309	7,546
1965	9,708	7,736
1966	10,242	8,182
1967	10,746	8,596
1968	11,438	9,146
1969	12,742	9,375
1970	13,150	9,692
1971	14,142	10,763
1972	14,506	10,976
1973	14,858	11,272
1974	15,181	11,883*
1975	15,413	12,069
1976	15,472	12,046
1977	15,553	12,105
1978	15,824	12,255
1979	16,030	12,437
1980R	16,651	13,091
1981R	16,877	13,270
1982	17,240	13,441

*Not comparable to previous years due to reclassification.
R—Revised.

TABLE 5-7

SELECTED STATISTICS FOR MAJOR TRANSMISSION COMPANIES, 1982

Name of Transmission System	No. of Transmission Stations	Total Miles of Transmission Pipeline	Peak Day Sendout (MMCF)	Operating Revenues ($000,000)
Algonquin Gas Transmission Co.	3	930	815	$ 742.6
Colorado Interstate Gas Co.	17	2,726	1,313	1,149.6
Columbia Gas Transmission Corp.	106	10,191	6,083	3,856.7
Columbia Gulf Transmission Co.	13	4,174	1,533	212.0
Consolidated Gas Supply Corp.	41	3,600	3,926	2,402.9
East Tennessee Natural Gas Co.	10	1,012	a	288.9
El Paso Natural Gas Co.	53	9,338	3,667	4,054.4
Florida Gas Transmission Co.	20	4,314	985	678.3
InterNorth, Inc.	65	18,550	3,291	2,648.6
Michigan Wisconsin Pipe Line Co.	38	7,718	2,819	2,455.0
Midwestern Gas Transmission Co.	19	903	774	908.4
Mississippi River Transmission Corp.	15	1,969	914	702.0
Natural Gas Pipeline Co. of America	79	8,338	4,526	2,954.7
Northwest Central Pipeline Co.	41	5,835	1,497	1,043.0
Pacific Gas Transmission Co.	13	799	1,083	1,420.0
Panhandle Eastern Pipe Line Co.	70	6,816	2,186	2,045.0
South Georgia Natural Gas Co.	2	767	115	117.0
Southern Natural Gas Co.	47	7,488	2,451	1,987.3
Tenneco, Inc.	69	13,931	3,769	3,947.2
Texas Eastern Transmission Corp.	75	9,463	3,925	3,146.9
Texas Gas Transmission Corp.	28	5,672	2,300	2,097.9
Transcontinental Gas Pipe Line Corp.	38	9,875	7,716	3,652.6
Transwestern Pipeline Co.	219	4,309	968	1,506.6
Trunkline Gas Co.	21	3,934	1,583	1,802.2
United Gas Pipe Line Co.	31	7,354	3,872	3,436.4

a. Not available.

Source: Federal Energy Regulatory Commission, FERC Form No. 2: Annual Report of Natural Gas Companies (Class A and Class B), 1982.

SECTION 6
SALES-QUANTITIES

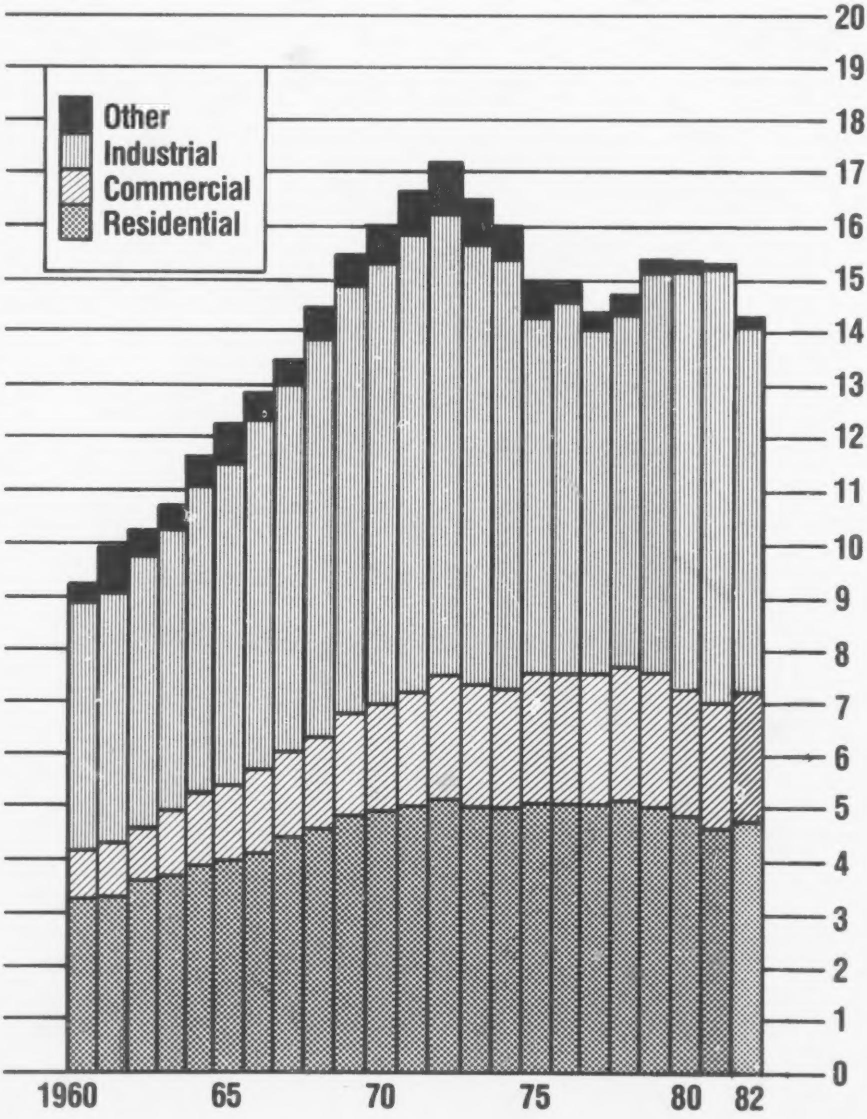
	1982	% Change 82/81
Gas Utility Industry		
(Trillions of Btu)		
Total	14,280.5	− 7.1
Residential	4,770.0	+ 3.5
Commercial	2,471.3	+ 4.0
Industrial	6,891.6	−16.4
Other	147.6	− 1.9
Resale	14,544.9	− 8.7
Electric Generation	2,032.6	− 9.9

Note: Totals in this section may not add due to independent rounding.

CHART 6-1

GAS UTILITY INDUSTRY SALES BY CLASS OF SERVICE

QUADRILLIONS OF BTU



REFERENCE: TABLE 6-1

SALES—QUANTITIES

TABLE 6-1
GAS UTILITY INDUSTRY SALES, BY CLASS OF SERVICE, 1960-1982[a]

(Trillions of Btu)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	9,287.7	3,188.1	919.8	4,709.4	470.4
1961	9,589.0	3,321.0	988.1	4,785.6	494.3
1962	10,234.8	3,536.9	1,092.9	5,100.1	504.9
1963	10,766.3	3,668.0	1,136.6	5,438.1	523.6
1964	11,591.2	3,869.7	1,273.5	5,912.0	536.0
1965	11,980.3	3,999.0	1,344.8	6,146.5	490.0
1966	12,859.1	4,175.4	1,462.8	6,653.3	567.6
1967	13,488.3	4,365.3	1,577.6	7,014.3	531.1
1968	14,472.4	4,552.7	1,704.9	7,595.1	619.7
1969	15,391.6	4,820.4	1,878.1	8,135.8	557.3
1970	16,043.5	4,923.7	2,006.6	8,439.2	674.0
1971	16,685.7	5,040.1	2,155.5	8,645.5	844.7
1972	17,082.1	5,141.8	2,275.7	8,775.7	888.0
1973	16,479.9	4,993.6	2,280.8	8,370.8	834.7
1974	16,000.3	4,864.8	2,293.4	8,153.2	689.0
1975	14,862.9	4,991.0	2,386.8	6,837.1	648.0
1976	14,813.5	5,014.2	2,422.6	7,192.0	184.6
1977	14,340.9	4,946.3	2,409.4	6,796.4	188.9
1978	14,748.4	5,106.7	2,499.5	6,931.5	210.7
1979	15,440.3	5,083.1	2,485.8	7,641.4	230.0
1980R	15,413.2	4,826.1	2,453.3	7,956.6	177.1
1981R	15,374.8	4,609.7	2,375.4	8,239.3	150.4
1982	14,280.5	4,770.0	2,471.3	6,891.6	147.6

a. Excludes data for Alaska prior to 1961.

b. Prior to 1976, "Other" electric generation (see Table 6-12) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

R—Revised.

TABLE 6-2
GAS UTILITY INDUSTRY SALES, BY CLASS OF SERVICE AND TYPE OF COMPANY
1976-1982[a]

(Trillions of Btu)

	1976	1977	1978	1979	1980[R]	1981[R]	1982
Distribution							
Total	4,156	3,851	4,026	4,151	3,983	3,136[b]	2,981
Residential	1,825	1,782	1,873	1,797	1,718	1,240	1,259
Commercial	854	830	880	899	901	737	771
Industrial	1,442	1,220	1,246	1,424	1,334	1,145	938
Other	35	19	28	31	30	14	13
Transmission							
Total	1,883	1,934	2,016	2,059	2,616	2,689	2,083
Residential	2	2	2	2	2	1	1
Commercial	6	5	4	4	8	7	7
Industrial	1,847	1,894	1,978	2,035	2,577	2,657	2,051
Other	28	33	32	19	29	24	24
Integrated							
Total	4,257	4,303	4,411	4,724	4,423	5,197[b]	4,910
Residential	1,358	1,390	1,428	1,458	1,359	1,719	1,799
Commercial	708	694	704	698	655	778	804
Industrial	2,147	2,149	2,209	2,455	2,359	2,645	2,254
Other	44	69	70	113	50	55	53
Combination							
Total	3,860	3,623	3,631	3,807	3,705	3,681	3,644
Residential	1,527	1,470	1,485	1,519	1,454	1,369	1,426
Commercial	727	753	781	756	763	725	755
Industrial	1,553	1,357	1,311	1,491	1,446	1,549	1,425
Other	53	42	54	42	42	38	38
Municipals							
Total	659	630	664	701	686	672	662
Residential	302	301	319	308	293	281	285
Commercial	127	128	131	129	126	128	134
Industrial	204	176	187	236	241	244	223
Other	25	25	27	28	26	19	20

a. Prior to 1976 "Other" electric generation is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

b. Data not directly comparable to previous years due to company reclassification.

R—Revised.

Note: This table depicts total sales as shown on Table 6-1, by company type.

SALES—QUANTITIES

TABLE 6-3
GAS UTILITY INDUSTRY SALES, BY QUARTER AND CLASS OF SERVICE
1960-1982

(Trillions of Btu)

Year and Quarter	Total	Residential	Commercial	Industrial*	Other*
1960					
First	3,124.9	1,459.0	404.6	1,119.7	141.6
Second	2,171.3	679.8	188.0	1,197.1	106.4
Third	1,676.1	265.5	92.7	1,222.1	95.8
Fourth	2,309.7	780.0	232.8	1,170.3	126.6
1965					
First	3,946.6	1,811.2	575.2	1,424.3	135.9
Second	2,818.1	878.9	291.2	1,538.8	109.2
Third	2,212.1	346.1	144.9	1,603.3	117.8
Fourth	3,001.0	961.1	332.8	1,580.0	127.1
1970					
First	5,262.3	2,286.9	867.7	1,939.2	168.5
Second	3,808.1	1,024.3	423.8	2,201.4	158.6
Third	3,041.5	420.7	218.6	2,236.1	166.1
Fourth	3,931.6	1,191.8	496.5	2,062.5	180.8
1974					
First	5,185.5	2,105.9	908.5	1,985.9	185.2
Second	3,865.1	1,055.0	496.4	2,163.3	150.4
Third	3,078.0	472.6	295.1	2,136.5	173.8
Fourth	3,871.6	1,231.2	593.4	1,867.5	179.5
1975					
First	4,931.5	2,192.8	970.4	1,598.7	169.6
Second	3,520.9	1,137.7	536.3	1,715.9	131.0
Third	2,794.9	474.9	301.2	1,842.2	176.6
Fourth	3,615.6	1,185.6	579.0	1,680.2	170.8
1976					
First	4,893.1	2,165.1	957.6	1,717.0	53.4
Second	3,317.7	963.9	472.4	1,843.8	37.6
Third	2,709.1	446.7	309.2	1,918.0	35.2
Fourth	3,893.5	1,438.5	683.4	1,717.3	54.3
1977					
First	5,010.3	2,395.4	1,019.4	1,534.6	60.9
Second	3,047.7	855.5	448.8	1,701.6	41.8
Third	2,602.9	425.6	314.7	1,822.3	40.3
Fourth	3,680.0	1,269.8	626.5	1,737.9	45.8
1978					
First	5,290.3	2,460.1	1,098.9	1,658.1	73.2
Second	3,220.5	960.2	491.4	1,724.8	44.1
Third	2,613.5	426.6	294.7	1,851.8	40.4
Fourth	3,624.1	1,259.9	614.5	1,696.8	53.0
1979					
First	5,479.5	2,462.8	1,095.8	1,828.2	92.7
Second	3,366.0	965.7	486.3	1,870.8	43.2
Third	2,715.4	431.2	283.8	1,966.5	33.9
Fourth	3,879.4	1,223.4	619.9	1,975.9	60.2
1980R					
First	5,433.8	2,218.7	1,031.1	2,118.8	65.2
Second	3,258.8	914.7	464.5	1,845.8	33.8
Third	2,753.6	405.4	300.0	2,019.5	28.7
Fourth	3,967.0	1,287.3	657.7	1,972.5	49.5
1981R					
First	5,311.9	2,170.9	1,007.6	2,075.6	57.8
Second	3,385.2	797.5	430.2	2,127.5	30.0
Third	2,792.7	399.5	293.6	2,076.8	22.8
Fourth	3,885.0	1,241.8	644.0	1,959.4	39.8
1982					
First	5,373.0	2,318.2	1,086.4	1,930.8	37.6
Second	3,043.2	880.9	465.3	1,668.0	29.0
Third	2,445.8	404.6	297.3	1,722.0	21.9
Fourth	3,418.5	1,166.3	622.3	1,590.8	39.1

*Prior to 1976, "Other" electric generation (see Table 6-12) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

R—Revised.

UTILITY SALES OF NATURAL GAS TO CONSUMERS BY MONTHS . . . 1979-1982

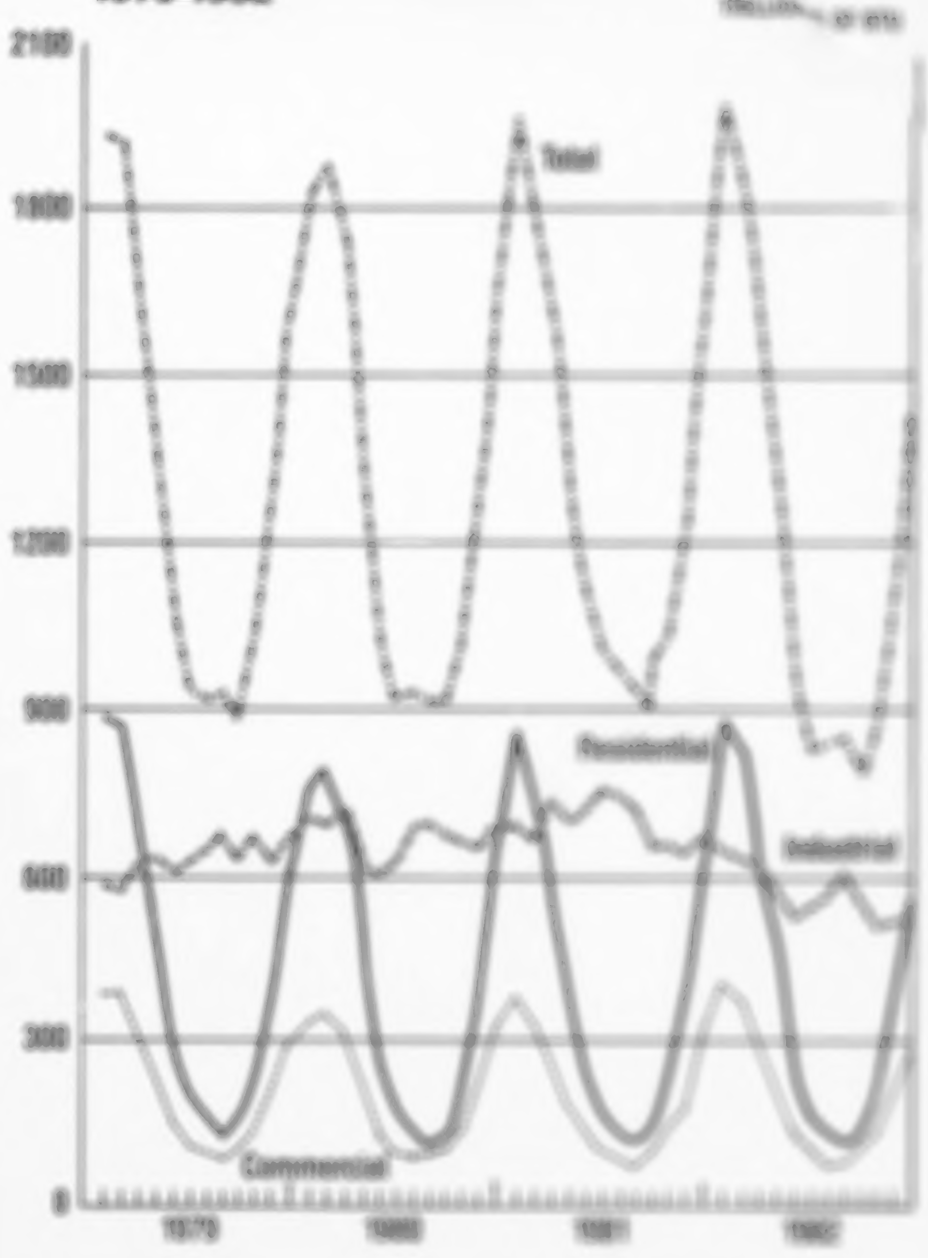


TABLE 8-4
GAS UTILITY INDUSTRY TOTAL SALES, BY MONTH, 1960-1982

(Trillions of Btu)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
1960	1,031.3	1,015.3	1,078.4	860.1	693.6	617.5	557.4	561.4	557.0	607.4	713.5	948.9	9,283.0
1965	1,306.0	1,229.2	1,313.4	1,068.2	874.9	775.0	748.0	732.8	731.3	823.5	974.4	1,197.9	10,977.6
1966	1,355.8	1,468.4	1,365.4	1,171.5	1,113.7	985.7	796.8	783.8	790.1	890.3	1,066.8	1,278.6	12,056.9
1967	1,502.8	1,426.1	1,429.8	1,117.4	1,064.2	911.8	829.1	822.3	829.6	923.6	1,151.6	1,401.3	13,406.2
1968	1,675.0	1,589.2	1,556.1	1,247.9	1,108.9	979.8	907.0	879.4	880.7	955.6	1,185.4	1,525.6	14,470.4
1969	1,784.6	1,640.0	1,626.8	1,375.2	1,126.0	1,008.6	906.2	954.3	946.6	1,030.6	1,299.8	1,610.5	15,289.7
1970	1,865.8	1,733.0	1,662.0	1,327.7	1,225.7	1,094.3	1,013.5	1,020.2	1,007.3	1,081.1	1,263.7	1,566.4	16,041.9
1971	1,986.8	1,873.5	1,769.3	1,359.1	1,312.2	1,145.2	1,053.3	1,057.4	1,023.7	1,108.9	1,305.7	1,610.4	16,685.7
1972	1,933.1	1,938.1	1,758.3	1,542.6	1,292.5	1,176.1	1,096.1	1,125.9	1,094.5	1,120.0	1,378.7	1,796.2	17,082.1
1973	1,989.4	1,752.8	1,645.3	1,369.1	1,332.1	1,143.8	1,104.8	1,068.0	1,063.1	1,136.3	1,306.7	1,516.3	16,470.9
1974	1,847.6	1,707.2	1,630.7	1,493.6	1,251.6	1,119.9	1,050.8	1,074.9	992.3	1,115.2	1,219.8	1,536.7	16,088.3
1975	1,709.2	1,633.6	1,588.4	1,455.1	1,120.8	966.8	924.7	934.8	935.4	1,009.2	1,102.8	1,503.6	14,862.9
1976	1,797.3	1,666.6	1,451.0	1,252.2	1,099.8	963.6	913.1	900.8	899.1	996.4	1,278.3	1,414.7	14,813.5
1977	1,901.9	1,682.7	1,425.7	1,168.4	974.8	904.3	875.8	866.3	860.7	976.7	1,153.5	1,549.8	14,340.9
1978	1,868.7	1,826.1	1,647.5	1,227.7	1,061.4	921.4	895.1	878.8	839.6	947.7	1,151.1	1,525.5	14,748.4
1979	1,925.1	1,923.8	1,630.5	1,356.3	1,074.6	934.9	903.7	920.9	891.3	1,038.9	1,253.4	1,587.0	15,440.4
1980R	1,824.5	1,871.1	1,729.2	1,315.2	1,024.5	919.1	926.3	919.0	906.3	1,024.6	1,286.9	1,655.5	15,413.2
1981R	1,987.2	1,794.7	1,595.0	1,274.6	1,107.7	1,063.1	957.8	933.4	901.3	1,045.1	1,234.9	1,605.0	15,374.8
1982	1,973.2	1,828.4	1,561.4	1,296.3	919.4	827.5	827.3	835.0	783.5	874.6	1,123.6	1,420.1	14,280.5

R—Revised.

TABLE 6-5
GAS UTILITY INDUSTRY SALES, BY STATE, 1960-1982[a]

(Trillions of Btu)

Division and State	1960	1965	1970	1975	1979	1980R	1981R	1982
United States	**9,287.7**	**11,980.3**	**16,043.5**	**14,862.9**	**15,440.3**	**15,413.2**	**15,374.8**	**14,280.5**
New England	**120.5**	**172.0**	**236.7**	**243.5**	**285.6**	**298.2**	**311.5**	**324.1**
Connecticut	31.5	44.0	61.4	61.0	68.7	73.4	78.3	79.1
Maine	1.3	1.3	1.8	2.0	1.9	2.2	2.3	2.7
Massachusetts	72.4	105.0	139.5	145.9	173.5	182.3	186.8	198.8
New Hampshire	3.0	4.3	6.7	7.8	8.9	9.5	10.2	10.4
Rhode Island	11.9	16.9	25.2	23.4	28.0	26.4	29.3	28.4
Vermont	0.4	0.5	2.1	3.4	4.7	4.1	4.6	4.6
Middle Atlantic	**993.9**	**1,293.4**	**1,651.0**	**1,495.1**	**1,593.2**	**1,658.2**	**1,719.9**	**1,641.4**
New Jersey	125.9	194.1	294.9	257.9	288.1	322.7	335.1	333.7
New York	358.0	475.6	595.9	581.9	588.2	600.8	640.7	650.6
Pennsylvania	510.0	623.7	760.2	655.4	716.9	734.7	744.1	657.1
East North Central	**1,872.4**	**2,724.4**	**3,896.4**	**3,749.5**	**3,901.6**	**3,658.1**	**3,509.7**	**3,341.6**
Illinois	509.5	746.5	1,140.3	1,112.4	1,193.5	1,100.3	1,059.5	1,050.0
Indiana	203.9	344.6	505.0	458.8	492.3	475.9	481.0	466.3
Michigan	357.2	545.3	839.4	885.8	889.4	850.0	788.7	724.0
Ohio	712.5	891.0	1,084.9	929.8	960.5	888.0	861.4	789.8
Wisconsin	89.3	197.0	326.8	362.7	365.9	343.9	319.2	311.3
West North Central	**1,040.4**	**1,316.0**	**1,743.7**	**1,592.4**	**1,488.9**	**1,412.3**	**1,283.6**	**1,223.6**
Iowa	157.7	205.6	292.5	298.8	267.2	255.8	243.6	231.2
Kansas	305.6	350.4	459.5	410.4	383.2	364.6	326.6	273.8
Minnesota	160.4	230.9	324.3	295.0	276.7	267.1	254.2	252.0
Missouri	257.2	333.2	421.0	344.5	349.9	326.8	285.8	284.4
Nebraska	126.7	153.7	197.8	187.2	160.3	152.5	130.8	132.7
North Dakota	8.5	15.6	18.9	24.7	25.1	21.6	20.5	24.3
South Dakota	24.3	26.6	29.7	31.8	26.5	23.9	22.1	25.1
South Atlantic	**649.8**	**871.8**	**1,311.1**	**1,106.1**	**1,235.6**	**1,255.7**	**1,308.2**	**1,229.0**
Delaware	8.9	16.6	24.3	19.3	20.8	22.7	25.7	23.9
District of Columbia	18.5	21.8	27.1	24.8	25.8	27.6	28.8	28.8
Florida	91.1	144.2	218.7	127.4	223.0	232.2	240.1	234.4
Georgia	188.5	210.3	333.8	312.5	292.8	299.7	307.0	292.2
Maryland	65.9	96.8	145.1	138.8	152.7	154.6	165.5	154.9
North Carolina	41.6	73.9	151.2	104.8	122.5	143.2	149.3	140.9
South Carolina	40.6	73.9	120.1	118.3	132.0	112.3	113.8	100.2
Virginia	64.3	91.3	133.9	116.0	128.2	134.8	145.1	140.3
West Virginia	130.4	143.0	156.9	144.3	137.9	128.6	133.0	113.4
East South Central	**600.1**	**729.7**	**995.4**	**752.8**	**798.7**	**807.9**	**777.3**	**709.9**
Alabama	180.3	224.8	290.0	227.9	234.1	224.6	217.8	191.6
Kentucky	126.6	142.1	189.9	180.0	184.4	175.9	171.1	156.7
Mississippi	146.2	177.1	265.6	141.3	162.9	191.5	178.8	165.8
Tennessee	147.0	185.7	249.9	203.5	217.2	216.0	209.6	195.7
West South Central	**2,216.5**	**2,408.5**	**3,031.0**	**2,973.6**	**3,220.4**	**3,534.9**	**3,673.8**	**3,242.6**
Arkansas	177.3	228.6	339.9	219.4	207.6	207.4	217.3	210.1
Louisiana	536.8	592.0	742.1	457.3	562.6	515.2	517.1	462.5
Oklahoma	248.8	255.0	275.6	417.9	490.7	472.3	453.0	454.3
Texas	1,253.6	1,332.9	1,673.4	1,879.9	1,959.5	2,340.0	2,432.4	2,115.7
Mountain	**576.4**	**703.8**	**926.1**	**928.6**	**907.5**	**841.9**	**776.4**	**709.5**
Arizona	110.9	127.3	168.1	144.4	147.0	136.4	142.2	113.0
Colorado	160.0	196.5	253.6	269.2	254.5	242.3	195.6	200.3
Idaho	22.0	34.8	43.1	51.2	50.4	45.4	41.5	34.5
Montana	51.3	67.4	78.8	79.8	64.8	54.1	48.2	49.5
Nevada	14.2	29.7	56.0	61.3	75.3	62.1	76.7	49.5
New Mexico	112.9	106.2	135.6	142.5	134.7	125.7	116.6	99.7
Utah	73.1	101.8	119.1	119.4	123.8	121.7	107.5	110.1
Wyoming	32.0	40.1	71.8	60.8	57.0	54.3	48.1	52.9
Pacific	**1,217.7**	**1,760.7**	**2,252.1**	**2,021.3**	**2,008.8**	**1,945.9**	**2,014.3**	**1,858.8**
Alaska	b	5.2	16.6	30.7	30.3	32.3	30.4	36.5
California	1,115.4	1,580.1	1,986.8	1,735.6	1,728.8	1,700.0	1,776.9	1,638.0
Hawaii	1.6	2.0	2.8	3.6	3.5	3.5	3.2	3.2
Oregon	32.0	59.0	88.1	86.8	92.4	76.4	75.1	68.0
Washington	68.7	114.4	157.8	164.6	153.7	133.8	128.6	113.1

a. Excludes sales for resale.
b. Not available.
R—Revised.

SALES—QUANTITIES

TABLE 6-6
GAS UTILITY INDUSTRY SALES OF GAS FOR RESALE, BY STATE
1960-1982

(Trillions of Btu)

Division and State	1960*	1965*	1970	1975	1980^R	1981^R	1982
United States	**9,257.8**	**12,566.4**	**17,575.6**	**14,504.5**	**15,705.1**	**15,923.7**	**14,544.9**
New England	**135.5**	**194.0**	**276.0**	**271.5**	**299.8**	**290.7**	**306.7**
Connecticut			83.0	82.7	76.4	76.1	78.3
Maine			0.0	0.0	0.0	0.0	0.0
Massachusetts			156.6	160.0	188.8	179.8	195.2
New Hampshire			8.6	5.8	6.8	6.5	7.1
Rhode Island			27.8	21.8	27.9	28.3	26.1
Vermont			0.0	1.3	0.0	0.0	0.0
Middle Atlantic	**1,337.4**	**1,827.4**	**2,433.3**	**1,901.6**	**2,334.0**	**2,381.9**	**2,313.0**
New Jersey			491.9	370.2	510.6	508.7	495.3
New York			802.5	572.2	707.5	727.9	770.8
Pennsylvania			1,138.9	959.2	1,115.9	1,145.3	1,046.9
East North Central	**1,999.8**	**3,296.3**	**5,249.0**	**4,542.8**	**4,442.0**	**4,488.0**	**4,068.6**
Illinois			1,688.6	1,537.1	1,613.3	1,589.7	1,569.1
Indiana			513.6	406.8	461.4	478.8	456.6
Michigan			698.5	759.4	615.8	694.7	470.7
Ohio			1,892.4	1,356.1	1,315.3	1,321.2	1,209.1
Wisconsin			455.9	483.4	436.1	403.7	363.1
West North Central	**759.7**	**975.2**	**1,306.9**	**1,144.5**	**1,043.9**	**974.2**	**951.7**
Iowa			271.0	259.7	208.9	190.6	184.7
Kansas			206.4	169.7	149.4	178.8	138.6
Minnesota			272.6	239.0	239.1	214.6	217.8
Missouri			405.2	338.0	337.8	294.0	306.3
Nebraska			124.7	111.7	86.4	76.1	80.9
North Dakota			5.2	5.5	4.9	4.3	5.6
South Dakota			21.8	20.8	17.5	15.9	17.8
South Atlantic	**1,223.6**	**1,605.2**	**1,981.1**	**1,372.5**	**1,470.3**	**1,431.3**	**1,256.7**
Delaware			1.1	1.2	1.2	1.6	1.6
District of Columbia			0.0	0.0	0.0	0.0	0.0
Florida			63.4	82.7	94.7	95.5	83.8
Georgia			327.0	315.5	308.7	311.0	278.9
Maryland			183.1	151.0	184.5	197.5	169.4
North Carolina			157.9	118.5	165.8	165.2	157.6
South Carolina			166.5	127.6	135.2	133.2	96.6
Virginia			218.3	181.9	209.1	187.3	199.4
West Virginia			863.8	394.1	371.2	340.1	269.5
East South Central	**1,009.5**	**1,116.2**	**1,573.5**	**1,178.0**	**1,256.5**	**1,269.7**	**1,121.6**
Alabama			237.0	219.3	219.8	211.9	184.5
Kentucky			417.6	238.4	237.3	236.7	214.3
Mississippi			349.3	263.1	289.1	331.0	268.1
Tennessee			569.6	457.3	510.3	490.1	454.5
West South Central	**1,199.7**	**1,136.4**	**1,497.3**	**1,215.9**	**2,007.4**	**2,241.3**	**1,930.3**
Arkansas			22.6	16.1	16.0	15.6	14.4
Louisiana			854.6	569.2	661.9	771.0	679.9
Oklahoma			166.6	148.6	206.2	243.2	198.1
Texas			453.6	482.1	1,123.3	1,211.5	1,037.9
Mountain	**1,304.2**	**1,562.0**	**2,021.0**	**1,901.8**	**1,871.0**	**1,928.2**	**1,705.8**
Arizona			1,477.8	1,341.0	1,370.5	1,471.1	1,246.4
Colorado			249.0	279.6	261.8	210.3	214.8
Idaho			73.0	84.2	66.7	76.2	58.6
Montana			7.5	7.7	7.6	5.6	5.8
Nevada			5.8	9.5	9.9	8.6	10.2
New Mexico			104.9	71.8	58.6	61.3	66.4
Utah			21.3	7.4	8.4	7.0	7.4
Wyoming			81.6	100.6	87.5	88.1	96.3
Pacific	**288.4**	**853.7**	**1,237.6**	**975.9**	**980.1**	**918.3**	**890.5**
Alaska			0.0	0.0	27.4	0.0	0.0
California			680.5	346.5	436.5	456.5	455.9
Hawaii			0.0	0.0	0.0	0.0	0.0
Oregon			399.9	470.2	388.3	334.3	323.1
Washington			157.2	159.1	127.8	127.4	111.6

*Includes natural gas only prior to 1970 and state breakdowns not available prior to 1970.
R—Revised.

TABLE 6-7
GAS UTILITY INDUSTRY SALES, BY STATE AND CLASS OF SERVICE, 1982

(Trillions of Btu)

Division and State	Total	Class of Service				Average Btu Value	Electric Generation Included[b]
		Residential	Commercial	Industrial[a]	Other		
United States	**14,280.5**	**4,770.0**	**2,471.3**	**6,891.6**	**147.6**	**1,025.8**	**2,032.6**
New England	**324.1**	**149.6**	**99.6**	**72.3**	**2.6**	**1,024.9**	**23.9**
Connecticut	79.1	33.6	25.0	20.5	0.1	1,030.4	0.0
Maine	2.7	0.6	1.2	0.9	0.0	1,038.8	0.0
Massachusetts	198.8	93.8	63.5	39.2	2.3	1,026.8	23.1
New Hampshire	10.4	4.8	3.8	1.7	0.1	1,024.2	0.0
Rhode Island	28.4	15.3	5.1	7.9	0.0	1,000.4	0.8
Vermont	4.6	1.5	0.9	2.1	0.1	993.0	0.0
Middle Atlantic	**1,641.4**	**786.3**	**324.0**	**495.1**	**36.0**	**1,023.3**	**27.4**
New Jersey	333.7	151.6	79.9	102.0	0.2	1,032.6	21.6
New York	650.6	353.4	123.9	147.6	25.7	1,017.5	0.2
Pennsylvania	657.1	281.3	120.2	245.4	10.2	1,024.4	5.5
East North Central	**3,341.6**	**1,517.9**	**697.1**	**1,116.4**	**10.1**	**1,019.5**	**25.2**
Illinois	1,050.0	493.7	238.4	317.6	0.3	1,022.5	11.3
Indiana	466.3	164.7	71.5	227.5	2.6	980.8	0.1
Michigan	724.0	361.5	171.4	191.0	0.1	1,020.5	8.7
Ohio	789.8	378.5	159.0	245.6	6.8	1,028.4	0.8
Wisconsin	311.3	119.5	56.8	134.8	0.3	1,011.6	4.3
West North Central	**1,223.6**	**489.7**	**294.6**	**434.0**	**5.2**	**1,007.9**	**30.2**
Iowa	231.2	85.7	53.2	92.1	0.3	1,010.0	1.5
Kansas	273.8	83.0	48.9	138.7	3.2	1,003.9	24.1
Minnesota	252.0	106.8	50.1	94.6	0.5	1,000.1	2.2
Missouri	284.4	140.3	87.8	55.2	1.2	1,022.9	1.3
Nebraska	132.7	51.4	34.7	46.5	0.1	998.4	1.0
North Dakota	24.3	10.9	11.7	1.6	c	1,000.0	c
South Dakota	25.1	11.7	8.2	5.2	c	986.4	0.0
South Atlantic	**1,229.0**	**339.1**	**240.3**	**640.8**	**8.8**	**1,031.4**	**113.5**
Delaware	23.9	6.9	3.8	12.0	1.2	1,034.9	0.0
Dist. of Columbia	28.8	13.0	15.8	0.0	0.0	1,017.0	0.0
Florida	234.4	14.1	29.3	187.6	3.5	1,050.8	111.3
Georgia	292.2	92.9	58.1	140.9	0.3	1,030.0	1.8
Maryland	154.9	68.8	31.3	54.8	0.1	1,019.0	0.2
North Carolina	140.9	32.2	24.9	82.9	0.8	1,032.3	0.0
South Carolina	100.2	18.7	17.2	63.7	0.6	1,029.7	0.1
Virginia	140.3	47.4	37.8	52.9	2.2	1,026.9	0.0
West Virginia	113.4	45.2	22.2	46.0	0.1	1,022.3	0.1
East South Central	**709.9**	**189.1**	**110.8**	**394.9**	**15.1**	**1,025.6**	**64.3**
Alabama	191.6	50.5	25.7	115.1	0.4	1,034.2	c
Kentucky	156.7	68.4	30.2	52.5	5.6	1,013.9	0.0
Mississippi	165.8	27.5	13.6	118.1	6.6	1,021.1	64.2
Tennessee	195.7	42.7	41.3	109.2	2.4	1,031.6	c
West South Central	**3,242.6**	**419.7**	**245.5**	**2,527.5**	**50.0**	**1,033.8**	**1,116.0**
Arkansas	210.1	46.0	29.5	134.2	0.3	1,001.8	28.7
Louisiana	462.5	67.9	26.5	352.5	15.6	1,053.1	147.5
Oklahoma	454.3	80.5	46.2	326.9	0.8	1,028.5	151.2
Texas	2,115.7	225.3	143.3	1,713.9	33.3	1,034.4	788.6
Mountain	**709.5**	**257.3**	**158.5**	**276.7**	**17.1**	**991.8**	**73.5**
Arizona	113.0	31.4	22.0	57.6	2.0	1,053.6	23.6
Colorado	200.3	84.7	64.6	50.0	1.0	881.7	5.6
Idaho	34.5	7.4	8.9	18.2	0.0	1,070.1	0.0
Montana	49.5	21.2	14.6	11.6	2.1	978.0	0.1
Nevada	49.5	17.2	8.7	23.2	0.4	1,041.6	16.8
New Mexico	99.7	28.7	15.0	45.9	10.1	1,057.4	27.5
Utah	110.1	52.0	15.8	42.3	c	1,028.0	0.0
Wyoming	52.9	14.7	8.8	27.8	1.5	976.1	0.0
Pacific	**1,858.8**	**621.3**	**300.7**	**934.0**	**2.8**	**1,047.5**	**558.6**
Alaska	36.5	10.2	4.0	22.3	0.0	1,004.9	17.4
California	1,638.0	560.4	247.6	827.6	2.4	1,048.7	541.1
Hawaii	3.2	0.6	0.8	1.8	0.0	989.1	0.0
Oregon	68.0	19.5	16.8	31.6	0.0	1,042.7	c
Washington	113.1	30.6	31.5	50.6	0.4	1,048.4	0.1

a. Includes Electric Generation.
b. Included in Industrial.
c. Less than 0.05 trillion Btu.

TABLE 6-8
GAS UTILITY INDUSTRY FIRM AND INTERRUPTIBLE GAS SALES BY STATE, 1982

(Trillions of Btu)

Division and State	Commercial			Industrial		
	Total	Firm	Interruptible	Total	Firm	Interruptible
United States	**2,471.3**	**2,278.4**	**192.9**	**6,891.6**	**4,012.5**	**2,879.1**
New England	**99.6**	**75.3**	**24.3**	**72.3**	**31.7**	**40.6**
Connecticut	25.0	18.2	6.8	20.5	12.1	8.4
Maine	1.2	1.2	0.0	0.9	0.9	0.0
Massachusetts	63.5	46.1	17.4	39.2	14.9	24.2
New Hampshire	3.8	3.8	0.0	1.7	0.9	0.8
Rhode Island	5.1	5.1	0.1	7.9	2.8	5.1
Vermont	0.9	0.9	0.0	2.1	0.1	2.1
Middle Atlantic	**324.0**	**313.5**	**10.5**	**495.1**	**362.3**	**132.8**
New Jersey	79.9	73.4	6.5	102.0	43.5	58.5
New York	123.9	121.1	2.8	147.6	104.0	43.6
Pennsylvania	120.2	119.0	1.2	245.4	214.7	30.7
East North Central	**697.1**	**683.0**	**14.1**	**1,116.4**	**903.3**	**213.1**
Illinois	238.4	238.1	0.4	317.6	274.3	43.3
Indiana	71.5	67.2	4.3	227.5	194.0	33.5
Michigan	171.4	169.7	1.7	191.0	148.6	42.4
Ohio	159.0	157.8	1.2	245.6	226.7	18.9
Wisconsin	56.8	50.3	6.5	134.8	59.8	75.0
West North Central	**294.6**	**238.7**	**55.9**	**434.0**	**163.3**	**270.6**
Iowa	53.2	43.8	9.4	92.1	63.0	29.1
Kansas	48.9	31.7	17.2	138.7	28.6	110.2
Minnesota	50.1	42.8	7.3	94.6	31.5	63.1
Missouri	87.8	71.1	16.7	55.2	12.7	42.5
Nebraska	34.7	33.4	1.3	46.5	26.6	19.9
North Dakota	11.7	8.5	3.3	1.6	0.1	1.6
South Dakota	8.2	7.4	0.7	5.2	0.9	4.3
South Atlantic	**240.3**	**215.3**	**25.1**	**640.8**	**274.4**	**366.4**
Delaware	3.8	3.6	0.2	12.0	9.5	2.6
District of Columbia	15.8	11.7	4.1	0.0	0.0	0.0
Florida	29.3	28.2	1.1	187.6	20.7	166.8
Georgia	58.1	57.9	0.2	140.9	18.4	122.5
Maryland	31.3	23.5	7.8	54.8	35.9	18.9
North Carolina	24.9	24.9	0.0	82.9	74.3	8.6
South Carolina	17.2	12.8	4.4	63.7	27.1	36.6
Virginia	37.8	31.2	6.6	52.9	42.6	10.3
West Virginia	22.2	21.5	0.6	46.0	45.8	0.2
East South Central	**110.8**	**102.4**	**8.4**	**394.9**	**260.5**	**134.4**
Alabama	25.7	22.0	3.7	115.1	62.3	52.8
Kentucky	30.2	28.3	2.0	52.5	25.6	26.8
Mississippi	13.6	13.6	a	118.1	115.6	2.5
Tennessee	41.3	38.5	2.8	109.2	57.0	52.3
West South Central	**245.5**	**238.7**	**6.9**	**2,527.5**	**1,796.1**	**731.4**
Arkansas	29.5	29.3	0.2	134.2	116.9	17.4
Louisiana	26.5	26.5	a	352.5	301.2	51.3
Oklahoma	46.2	41.0	5.2	326.9	220.9	106.0
Texas	143.3	141.8	1.5	1,713.9	1,157.1	556.8
Mountain	**158.5**	**156.8**	**1.7**	**276.7**	**151.6**	**125.1**
Arizona	22.0	22.0	0.0	57.6	57.5	0.1
Colorado	64.6	64.3	0.3	50.0	14.4	35.6
Idaho	8.9	8.6	0.3	18.2	16.4	1.8
Montana	14.6	14.2	0.4	11.6	1.1	10.5
Nevada	8.7	8.7	0.0	23.2	23.2	0.0
New Mexico	15.0	14.4	0.7	45.9	27.9	18.1
Utah	15.8	15.8	0.0	42.3	7.0	35.3
Wyoming	8.8	8.8	a	27.8	4.2	23.7
Pacific	**300.7**	**254.7**	**46.0**	**934.0**	**69.4**	**864.6**
Alaska	4.0	4.0	0.0	22.3	4.9	17.4
California	247.6	210.5	37.1	827.6	22.4	805.2
Hawaii	0.8	0.8	0.0	1.8	1.8	0.0
Oregon	16.8	16.2	0.6	31.6	15.8	15.8
Washington	31.5	23.2	8.3	50.6	24.4	26.2

a. Less than 0.05 trillion Btu.

TABLE 6-9
GAS UTILITY INDUSTRY SALES BY TYPE OF INDUSTRY CLASSIFICATION, 1960-1982

(Trillions of Btu)

Industry Classification	1960	1965	1970	1975	1980R	1981R	1982
Agriculture, forestry and fisheries	10.8	12.0	33.0	49.7	47.1	37.5	70.2
Petroleum and natural gas production	48.3	97.8	101.0	83.8	32.2	59.8	26.6
Other mining	44.8	69.8	59.8	49.3	55.6	72.5	52.6
Electric services[a]	1,420.4	1,734.2	2,588.6	1,685.2	2,520.5	2,599.8	2,327.3
Other transportation, communications and public utilities	22.4	38.5	96.2	95.9	92.5	82.2	74.3
Hotels, rooming houses, camps	16.2	33.5	67.3	77.8	27.8	27.9	31.0
Laundries, cleaning and dyeing	4.0	16.3	21.5	24.3	22.0	22.3	26.2
Other services	34.2	70.1	175.1	236.7	309.5	312.3	359.8
Other non-manufacturing	43.1	74.9	198.6	187.5	151.8	169.8	244.0
Ordnance	14.1	21.2	35.4	b	b	b	b
Food and kindred products	167.8	243.0	330.5	338.9	320.2	346.4	326.9
Textile products, apparel, fabrics, etc.	22.6	43.7	72.5	54.6	64.3	56.4	56.9
Furniture, lumber and other wood products	23.1	52.3	64.9	61.1	45.7	53.9	49.1
Paper and allied products	193.2	267.5	402.7	267.6	257.8	270.8	221.3
Carbon black	15.0	42.0	52.8	38.2	34.1	24.2	14.1
Chemicals and allied products (except carbon black)	519.6	644.6	880.7	886.5	603.8	883.4	729.8
Petroleum refining	384.1	375.1	639.6	514.5	372.0	419.9	302.3
Rubber and miscellaneous plastic products	16.8	38.9	47.8	45.1	50.7	59.8	56.0
Glass products	138.4	184.8	208.8	173.7	170.9	160.9	144.2
Cement	169.6	183.5	195.0	158.1	49.2	37.0	14.9
Clay products, pottery, etc.	129.6	153.7	145.3	110.0	86.4	74.3	57.5
Other stone products and miscellaneous	30.8	68.3	82.3	97.0	85.5	84.9	59.8
Primary iron and steel industries	346.1	552.4	669.0	555.5	546.3	600.8	394.1
Primary non-ferrous industries	208.1	270.8	232.9	275.9	194.4	254.7	178.6
Fabricated metal products, machinery equipment and supplies	110.7	181.6	289.8	276.8	233.1	233.7	218.5
Transportation equipment	65.1	112.0	170.8	140.2	84.4	87.6	80.9
Other manufacturing	33.9	63.3	100.0	122.1	121.0	107.2	93.1
Public Administration	c	c	c	72.1	70.0	72.8	83.4
Unclassified	e	e	e	e	e	e	1,429.7
Total (Sum)[a]	**4,232.8**	**5,645.9**	**7,961.9**	**6,678.3**	**6,648.8**	**7,212.9**	**7,722.9**
Total Commercial, Industrial and "Other" sales of co.'s reporting this table	**4,512.7**	**6,050.0**	**8,022.9**	**8,786.0**	**7,851.5**	**8,120.5**	**6,870.5**
Total Gas Utility Industry Commercial, Industrial and "Other" sales[d]	**5,179.8**	**6,636.5**	**9,113.2**	**9,871.9**	**10.587.0**	**10,765.1**	**9,510.5**

a. Includes the following quantities of gas for electric generation not included in Total Commercial, Industrial, and "Other" sales of companies reporting this table or in Total Gas Utility Industry sales. Such quantities represent transfers by the gas department to the electric department of combination gas and electric companies. Quantities in trillions of Btu's are: 1960-234.1; 1965-245.2; 1970-283.6; 1975-301.6; 1980-416.7; 1981-344.0; and 1982-294.7.

b. Classification eliminated.

c. New classification in 1972.

d. Includes Industrial and "Other" sales only prior to 1971.

e. New classification in 1982.

R—Revised.

TABLE 6-10

GAS UTILITY INDUSTRY SALES, BY TYPE OF INDUSTRY CLASSIFICATION AND BY DIVISION, 1982

(Trillions of Btu)

Industry Classification	Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Agriculture, forestry and fisheries	70.2	0.5	1.6	8.2	16.3	0.4	0.1	28.0	1.9	13.3
Petroleum and natural gas production	26.6	0.0	a	0.3	5.5	a	1.0	5.8	2.0	12.1
Other mining	52.6	0.1	0.1	4.2	0.3	9.1	0.1	27.3	6.7	4.7
Electric services[b]	2.327.3	23.9	214.0	28.8	31.9	121.3	65.2	1.191.0	92.5	558.6
Other transportation, communication, and public utilities	74.3	1.5	2.8	20.1	22.7	1.8	1.1	5.0	3.6	15.7
Hotels, rooming houses, and camps	31.0	0.9	4.5	9.7	1.7	1.2	0.7	0.5	0.3	11.4
Laundries, cleaning and dyeing	26.2	0.8	1.4	8.1	0.3	1.1	1.2	0.3	a	13.0
Other services	359.8	9.7	36.6	160.8	23.4	16.5	11.8	8.9	6.5	85.6
Other non-manufacturing	244.0	14.7	28.9	112.6	10.6	6.2	7.4	1.3	3.7	58.6
Food and kindred products	326.9	3.8	27.5	111.4	54.6	19.7	10.0	11.1	16.7	72.2
Textile products, apparel, fabrics, etc.	56.9	2.7	5.9	3.4	0.1	35.1	5.5	0.2	0.1	4.0
Furniture, lumber, and other wood products	49.1	0.1	2.2	5.7	0.8	1.7	10.9	17.8	0.3	9.7
Paper and allied products	221.3	2.9	22.0	53.2	5.9	40.2	46.5	15.2	7.3	28.1
Carbon black	14.1	a	0.0	0.5	6.9	0.6	0.3	5.4	0.0	0.4
Chemicals and allied products (except carbon black)	729.8	3.8	32.4	110.4	67.4	113.3	36.6	313.9	14.5	37.5
Petroleum refining	302.3	0.0	8.1	17.7	14.6	7.7	5.7	153.8	7.7	87.0
Rubber and miscellaneous plastic products	56.0	0.6	5.3	19.1	3.7	5.2	5.2	11.9	1.0	3.8
Glass products	144.2	2.7	41.3	42.9	2.7	16.8	7.1	9.4	0.0	21.4
Cement	14.9	0.1	0.3	1.0	1.5	3.4	1.1	3.2	1.2	3.1
Clay products, pottery, etc.	57.5	0.5	6.4	11.5	8.8	19.3	3.3	1.1	1.1	5.6
Other stone products and miscellaneous	59.8	0.9	9.9	11.2	6.7	15.6	0.6	0.4	2.4	12.2
Primary iron and steel industries	394.1	1.5	72.6	224.3	15.5	29.8	26.1	0.7	8.7	15.0
Primary non-ferrous industries	178.6	1.7	24.9	61.8	5.8	7.4	12.7	24.2	22.1	18.0
Fabricated metal products, machinery equipment and supplies	218.5	6.6	31.6	113.3	16.4	8.6	11.3	4.0	1.6	25.2
Transportation equipment	80.9	1.0	8.8	44.6	6.7	3.2	3.4	1.2	0.5	11.5
Other manufacturing	93.1	3.5	15.3	34.8	5.7	6.5	8.6	3.0	1.9	13.8
Public administration	83.4	2.1	5.9	15.8	6.0	18.0	6.4	6.0	2.6	20.6
Unclassified	1,429.7	38.3	361.0	322.7	235.6	189.9	40.7	83.2	111.6	46.7
Total (Sum)[b]	**7,722.9**	**124.5**	**971.0**	**1,558.0**	**578.1**	**699.6**	**330.9**	**1,933.7**	**318.4**	**1,208.7**
Total Commercial, Industrial and "Other" sales of co.'s reporting this table	**6,870.5**	**118.1**	**785.7**	**1,550.9**	**572.2**	**687.2**	**314.7**	**1,382.2**	**281.2**	**1,178.4**
Total Gas Utility Industry Commercial, Industrial and "Other" sales	**9,510.5**	**174.5**	**855.1**	**1,823.6**	**733.8**	**889.9**	**520.8**	**2,823.0**	**452.3**	**1,237.5**

a. Less than 0.05 trillions of Btu.

b. Includes the following quantities of gas for electric generation not included in Total Commercial, Industrial and "Other" sales of companies reporting this table or in Total Gas Utility Industry sales. Such quantities represent transfers by the gas department to the electric department of combination gas and electric companies:

294.7 0.0 186.6 3.6 1.7 7.8 1.0 75.1 19.0 0.0

TABLE 6-11
GAS CONSUMED FOR ELECTRIC GENERATION,* BY STATE, 1960–1982

(Millions of Cubic Feet)

Division and State	1960	1965	1970	1975	1980	1981	1982
United States	**1,724,762**	**2,321,101**	**3,931,860**	**3,146,874**	**3,681,595**	**3,642,550**	**3,226,552**
New England	**12,885**	**13,918**	**8,133**	**2,523**	**7,001**	**9,826**	**16,191**
Connecticut	1,756	337	147	344	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	10,785	13,098	5,668	1,437	5,083	6,890	15,289
New Hampshire	0	0	0	177	0	139	0
Rhode Island	344	483	2,319	11	1,679	2,603	794
Vermont	0	0	0	555	239	191	107
Middle Atlantic	**89,288**	**97,850**	**161,385**	**23,426**	**206,769**	**212,837**	**219,617**
New Jersey	25,482	22,440	45,891	8,601	79,513	79,064	65,476
New York	57,819	74,189	106,141	13,613	124,391	130,508	152,575
Pennsylvania	5,987	1,221	9,354	1,213	2,865	3,267	1,568
East North Central	**61,407**	**68,232**	**278,143**	**118,394**	**65,883**	**47,143**	**31,610**
Illinois	42,348	34,618	132,382	34,176	19,165	13,166	10,387
Indiana	8,790	13,272	29,507	10,994	1,904	5,307	2,703
Michigan	5,209	2,989	64,270	47,151	26,368	19,191	12,972
Ohio	2,992	2,947	21,380	6,139	4,706	2,052	1,231
Wisconsin	2,068	14,406	30,604	19,935	13,740	7,428	4,319
West North Central	**245,084**	**303,818**	**420,086**	**264,825**	**143,387**	**100,328**	**72,879**
Iowa	48,587	52,238	77,910	46,929	6,835	3,362	2,502
Kansas	82,195	112,955	167,885	127,818	101,022	79,117	61,062
Minnesota	48,521	51,420	58,954	22,709	8,077	5,552	3,274
Missouri	30,251	47,552	62,970	26,320	15,329	7,660	4,443
Nebraska	30,973	36,269	47,641	37,659	11,850	4,560	1,555
North Dakota	103	25	362	157	15	17	17
South Dakota	4,454	3,359	4,364	3,232	259	56	32
South Atlantic	**147,439**	**117,395**	**343,468**	**199,105**	**191,409**	**194,218**	**194,773**
Delaware	3,190	4,611	3,744	1,697	6,999	5,685	5,203
District of Colmbia	0	0	0	0	0	0	0
Florida	88,518	87,001	198,367	141,153	166,047	171,469	182,471
Georgia	25,336	831	58,674	40,282	3,666	2,780	1,511
Maryland	78	56	11,435	451	5,230	6,000	935
North Carolina	4,660	2,895	21,126	101	1,702	902	77
South Carolina	23,278	18,801	45,081	14,566	5,418	5,009	517
Virginia	1,438	2,268	4,276	496	2,285	2,180	3,928
West Virginia	941	932	705	358	62	199	131
East South Central	**53,249**	**78,626**	**140,940**	**37,774**	**99,461**	**78,906**	**86,014**
Alabama	9,378	5,561	15,444	5,994	1,382	1,782	1,338
Kentucky	2,288	453	8,533	272	1,902	2,587	1,519
Mississippi	34,358	56,360	99,710	31,507	95,073	74,222	83,155
Tennessee	7,225	16,252	17,253	0	1,104	316	0
West South Central	**656,727**	**1,009,857**	**1,735,541**	**2,042,085**	**2,243,820**	**2,134,393**	**1,939,279**
Arkansas	46,779	67,510	107,445	31,818	58,863	56,211	33,444
Louisiana	119,818	175,573	331,750	356,130	424,991	414,892	372,706
Oklahoma	82,820	127,231	234,721	300,848	329,940	285,017	246,920
Texas	407,310	639,543	1,061,625	1,353,290	1,430,026	1,378,275	1,286,208
Mountain	**134,990**	**136,442**	**198,745**	**164,636**	**175,032**	**175,603**	**101,211**
Arizona	53,246	36,740	58,898	17,693	49,699	57,912	31,256
Colorado	37,015	35,539	51,194	52,930	31,928	13,596	6,044
Idaho	0	0	0	18	46	16	5
Montana	341	1,992	2,529	1,059	4,182	2,069	336
Nevada	6,339	13,271	25,336	25,152	27,541	44,249	15,690
New Mexico	33,701	43,996	54,894	64,239	56,280	54,558	44,724
Utah	3,677	4,742	3,520	2,725	5,133	3,099	3,020
Wyoming	671	163	2,373	819	222	107	133
Pacific	**323,693**	**494,963**	**645,478**	**294,105**	**548,833**	**689,294**	**564,978**
Alaska	0	2,149	8,198	19,619	28,763	29,070	30,991
California	322,992	492,701	636,270	274,483	518,808	659,549	533,832
Hawaii	0	0	0	0	0	0	0
Oregon	701	113	1,010	3	321	186	33
Washington	0	0	0	0	941	491	121

*Includes direct sales by producers to electric utilities as well as sales by the gas utility industry.
Source: Energy Information Administration, U.S. Department of Energy, *Electric Power Monthly*, January 1982-December 1982.

TABLE 6-12
GAS UTILITY INDUSTRY GAS USED FOR ELECTRIC GENERATION, 1960-1982[a]

(Trillions of Btu)

Year	Sales				Transfers[c]	Total Sales and Transfers
	Industrial[b]					
	Firm	Interruptible	Other	Total Sales		
1960	999.3		187.1	1,186.4	234.1	1,420.4
1961	990.6		218.6	1,209.2	244.0	1,453.2
1962	1,040.7		259.0	1,299.7	239.1	1,538.8
1963	1,103.2		306.6	1,409.7	247.1	1,656.8
1964	1,258.3		347.0	1,605.3	265.4	1,870.7
1965	1,179.5		308.5	1,488.0	246.2	1,734.2
1966	1,276.2		367.8	1,644.0	260.2	1,904.2
1967	1,386.9		316.7	1,703.6	254.3	1,957.9
1968	1,489.6		381.3	1,870.9	270.9	2,141.8
1969	1,643.9		360.8	2,004.7	232.6	2,237.3
1970	1,877.5		427.5	2,305.0	283.6	2,588.6
1971	853.6	1,083.6	483.4	2,420.6	595.2	3,015.9
1972	956.5	858.4	553.3	2,368.4	549.5	2,917.9
1973	542.8	871.6	511.4	1,925.8	477.2	2,403.0
1974	497.2	812.5	387.9	1,697.6	419.8	2,117.4
1975	374.5	623.4	385.8	1,383.6	301.6	1,685.2
1976	478.1	889.5	d	1,367.6	250.9	1,618.5
1977	489.1	959.6	d	1,448.7	241.1	1,689.8
1978	544.2	854.0	d	1,398.2	187.9	1,586.1
1979	665.2	980.0	d	1,645.2	335.0	1,980.2
1980[R]	974.0	1,129.8	d	2,103.8	416.7	2,520.5
1981[R]	996.6	1,259.3	d	2,255.9	344.0	2,599.8
1982	920.6	1,111.9	d	2,032.6	294.7	2,327.3

a. Excludes direct sales by producers to electric utilities.
b. No breakdown available prior to 1971.
c. Represents transfers by the gas department to the electric department of combination gas and electric companies.
d. Other now included with Industrial to conform to the definition of industrial services.
R—Revised.

TABLE 6-13
GAS UTILITY INDUSTRY GAS USED FOR ELECTRIC GENERATION BY STATE, 1982[a]

(Trillions of Btu)

Division and State	Industrial Sales: Firm	Industrial Sales: Interruptible	Industrial Sales: Total	Transfers[b]	Total Sales and Transfers
United States	920.6	1,111.9	2,032.6	294.7	2,327.3
New England	c	23.9	23.9	0.0	23.9
Connecticut	0.0	0.0	0.0	0.0	0.0
Maine	0.0	0.0	0.0	0.0	0.0
Massachusetts	c	23.1	23.1	0.0	23.1
New Hampshire	0.0	0.0	0.0	0.0	0.0
Rhode Island	0.0	0.8	0.8	0.0	0.8
Vermont	0.0	0.0	0.0	0.0	0.0
Middle Atlantic	5.7	21.7	27.4	186.6	214.0
New Jersey	0.0	21.6	21.6	46.3	67.9
New York	0.2	0.0	0.2	140.3	140.6
Pennsylvania	5.4	0.1	5.5	0.1	5.6
East North Central	16.2	9.0	25.2	3.6	28.8
Illinois	9.9	1.3	11.3	0.6	11.8
Indiana	0.1	0.0	0.1	2.6	2.7
Michigan	5.3	3.4	8.7	0.0	8.7
Ohio	0.8	c	0.8	0.3	1.1
Wisconsin	c	4.3	4.3	0.2	4.5
West North Central	3.1	27.1	30.2	1.7	31.9
Iowa	c	1.5	1.5	0.4	1.9
Kansas	2.3	21.9	24.1	0.6	24.7
Minnesota	c	2.2	2.2	0.3	2.5
Missouri	c	1.3	1.3	0.5	1.8
Nebraska	0.8	0.2	1.0	0.0	1.0
North Dakota	0.0	c	c	0.0	c
South Dakota	0.0	0.0	0.0	c	c
South Atlantic	0.2	113.4	113.5	7.8	121.3
Delaware	0.0	0.0	0.0	4.1	4.1
District of Columbia	0.0	0.0	0.0	0.0	0.0
Florida	c	111.2	111.3	0.0	111.3
Georgia	0.0	1.8	1.8	0.0	1.8
Maryland	0.0	0.2	0.2	0.6	0.9
North Carolina	c	c	c	0.0	c
South Carolina	0.1	c	0.1	0.4	0.5
Virginia	0.0	0.0	0.0	2.6	2.6
West Virginia	0.0	0.1	0.1	0.0	0.1
East South Central	48.9	15.3	64.3	1.0	65.2
Alabama	c	c	c	0.0	c
Kentucky	0.0	0.0	0.0	0.6	0.6
Mississippi	48.9	15.3	64.2	0.2	64.4
Tennessee	0.0	c	c	0.2	0.2
West South Central	794.9	321.1	1,116.0	75.1	1,191.0
Arkansas	26.9	1.7	28.7	0.0	28.7
Louisiana	135.9	11.6	147.5	38.8	186.3
Oklahoma	130.3	20.9	151.2	c	151.3
Texas	501.7	286.8	788.6	36.2	824.8
Mountain	51.5	22.0	73.5	19.0	92.5
Arizona	23.5	0.1	23.6	11.4	35.0
Colorado	1.6	4.0	5.6	1.4	7.0
Idaho	0.0	0.0	0.0	0.0	0.0
Montana	0.0	0.1	0.1	0.3	0.3
Nevada	16.8	0.0	16.8	5.8	22.6
New Mexico	9.6	17.9	27.5	0.0	27.5
Utah	0.0	0.0	0.0	0.0	0.0
Wyoming	0.0	0.0	0.0	c	c
Pacific	0.1	558.5	558.6	0.0	558.6
Alaska	0.0	17.4	17.4	0.0	17.4
California	0.0	541.1	541.1	0.0	541.1
Hawaii	0.0	0.0	0.0	0.0	0.0
Oregon	0.0	c	c	0.0	c
Washington	0.1	0.0	0.1	0.0	0.1

a. Excludes direct sales by producers to electric utilities.
b. Volumes transferred by the gas department to the electric department of combination gas and electric companies.
c. Less than 0.05 trillion Btu.

TABLE 6-14

TOTAL ETHANE AND LIQUEFIED PETROLEUM GAS SALES IN LIQUID FORM TO ULTIMATE CONSUMERS: BY MAJOR USE, 1960-1982[a]

(Thousands of gallons)

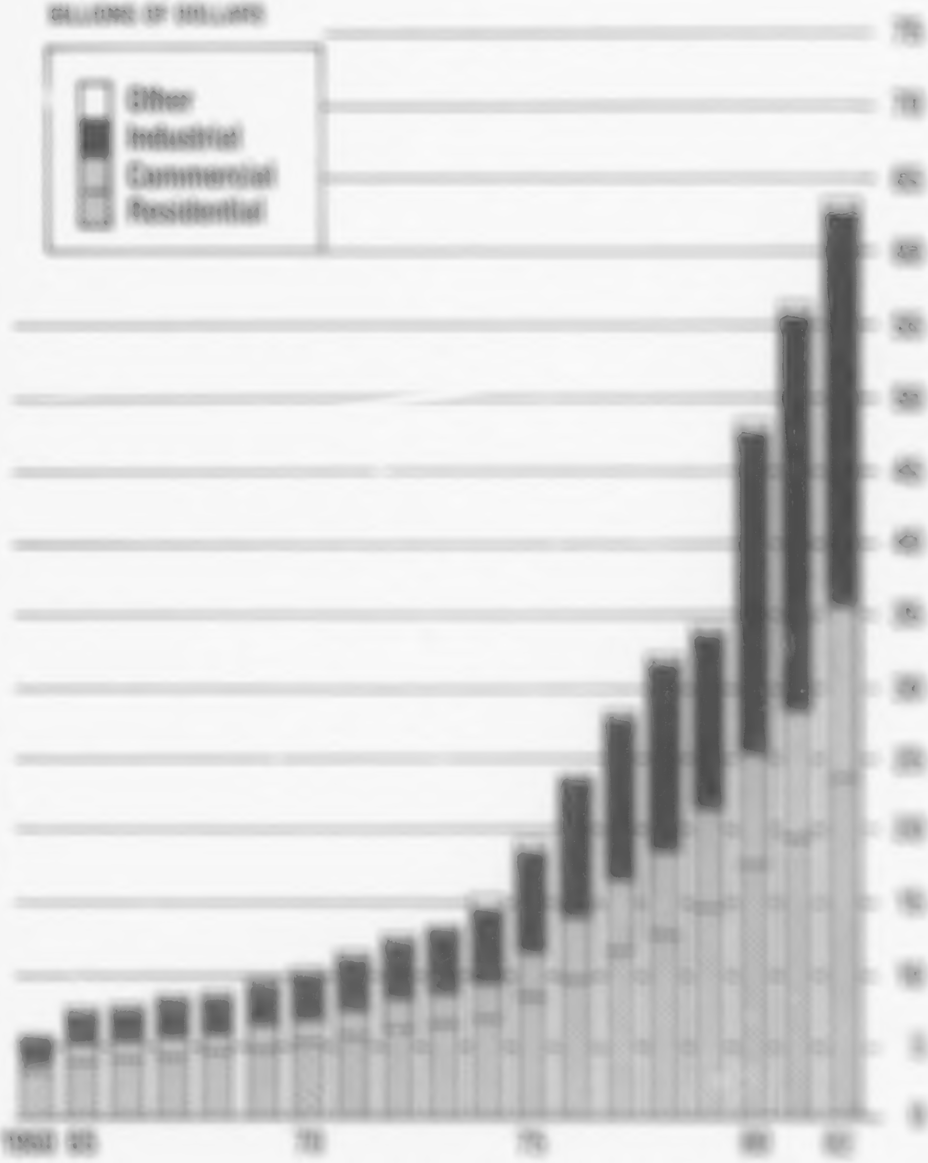
Year	Total	Gas Utility	Residential and Commercial	Industrial	Refinery Fuel	Internal Combustion Engine Fuel	Chemical Manufacturing	Synthetic Rubber	Other[b]
1960	9,554,649	157,041	4,224,537	438,659	157,036	897,915	3,019,011	538,971	111,479
1961	9,797,883	168,989	4,318,215	402,428	166,572	880,315	3,239,479	519,637	102,248
1962	10,729,394	173,481	4,712,682	424,730	231,084	931,611	3,571,339	587,379	97,088
1963	11,570,278	216,627	5,053,157	493,208	356,958	999,363	3,771,413	599,556	79,996
1964	12,473,258	117,004	5,180,794	521,006	439,110	1,176,260	4,315,725	651,472	71,887
1965	12,908,899	121,895	5,345,972	526,420	153,258	1,193,818	4,802,780	679,884	84,872
1966	13,594,755	109,310	5,681,636	552,911	92,820	1,213,514	5,096,044	734,276	114,244
1967	14,466,144	96,596	6,221,839	635,079	c	1,152,264	5,444,023	756,259	160,084
1968	16,165,632	171,193	6,718,108	807,866	c	1,228,498	6,250,067	775,365	214,435
1969	18,716,376	183,062	7,656,872	948,574	c	1,467,094	7,487,137	757,050	216,587
1970	18,789,162	212,177	7,568,691	897,130	c	1,335,851	7,730,058	790,655	254,600
1971	19,183,542	209,778	7,668,413	908,965	c	1,324,126	8,809,319	d	262,941
1972	21,833,700	302,481	8,253,340	1,124,263	c	1,479,190	10,358,858	d	315,568
1973	22,199,048	344,436	7,845,991	1,094,898	c	1,409,302	10,977,239	d	527,182
1974	21,538,692	356,848	7,231,035	1,069,319	c	1,309,750	10,654,038	d	917,702
1975	20,430,690	402,752	7,019,989	1,081,929	c	1,162,396	9,403,057	d	1,360,567
1976	21,586,740	445,947	7,313,023	1,051,753	c	1,169,766	9,658,488	d	1,947,763
1977	21,823,452	566,115	7,168,585	1,043,455	c	1,144,930	9,893,749	d	2,006,618
1978	21,657,468	496,789	6,954,440	1,339,928	c	993,277	10,197,845	d	1,675,189
1979	19,201,642	527,917	4,764,402	2,105,386	c	443,732	8,159,835	d	3,200,370
1980	18,603,882	594,403	4,372,576	2,217,409	c	508,011	7,807,957	d	3,103,526
1981	20,803,370	446,462	4,216,930	2,082,923	c	553,909	10,438,880	d	3,064,266
1982	19,441,489	318,397	4,047,120	2,094,983	c	643,946	9,679,161	d	2,657,882

a. Excludes LPG sales for export or for use in gasoline production. Includes ethane, propane, butane, isobutane, and butane-propane mixtures.
b. Includes secondary recovery of petroleum, agriculture uses, and use as substitute natural gas feedstock.
c. Included in "Industrial."
d. Included in "Chemical Manufacturing."
Source: Energy Information Administration, U.S. Department of Energy, *Energy Data Reports*: "Sales of Liquefied Petroleum Gases and Ethane in 1982."

SECTION 7
REVENUES

	1982	% Change 82/81
Gas Utility Industry		
(Thousands)		
Total	$63,390,683	+ 13.0
Residential	23,700,680	+ 23.6
Commercial	11,666,104	+ 25.6
Industrial	27,388,986	+ 1.0
Other	634,913	+ 22.1
Resale	52,342,615	+ 13.9
Electric Generation	8,099,480	+ 10.8

GAS UTILITY INDUSTRY REVENUES BY CLASS OF SERVICE



REVENUES

TABLE 7-1
GAS UTILITY INDUSTRY REVENUES, BY CLASS OF SERVICE, 1960-1982[a]

(Thousands)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	$ 5,617,387	$ 3,177,430	$ 723,448	$ 1,563,285	$153,224
1961	5,992,879	3,376,781	789,202	1,658,276	168,620
1962	6,444,860	3,603,266	874,366	1,795,894	171,334
1963	6,726,815	3,727,868	910,497	1,905,733	182,717
1964	7,132,685	3,894,870	998,386	2,048,527	190,902
1965	7,406,978	4,029,562	1,053,647	2,147,958	175,811
1966	7,869,888	4,195,331	1,135,352	2,334,654	204,551
1967	8,260,739	4,382,837	1,223,897	2,460,885	193,120
1968	8,781,152	4,567,307	1,315,409	2,675,261	223,175
1969	9,479,566	4,883,029	1,459,054	2,918,973	218,510
1970	10,282,611	5,207,335	1,620,446	3,181,206	273,624
1971	11,357,392	5,635,395	1,829,309	3,568,582	324,106
1972	12,465,235	6,094,171	2,063,803	3,943,011	364,250
1973	12,987,272	6,246,988	2,172,460	4,196,714	371,110
1974	15,242,481	6,899,395	2,539,300	5,391,139	412,647
1975	19,101,498	8,445,484	3,302,669	6,745,171	608,174
1976	23,701,211	9,941,013	4,075,009	9,434,751	250,438
1977	28,303,200	11,540,805	4,979,890	11,454,675	327,830
1978	32,149,921	12,938,865	5,695,666	13,138,576	376,814
1979	38,947,143	14,832,950	6,623,766	17,044,820	445,607
1980[R]	48,303,034	17,432,095	8,183,160	22,215,221	472,558
1981[R]	56,109,786	19,180,238	9,285,550	27,123,862	520,136
1982	63,390,683	23,700,680	11,666,104	27,388,986	634,913

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a. Excludes data for Alaska prior to 1961.

b. Prior to 1976 "Other" electric generation (refer to Table 7-10) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

R—Revised.

TABLE 7-2
GAS UTILITY INDUSTRY REVENUES, BY QUARTER AND CLASS OF SERVICE, 1960-1982

(Thousands)

Year and Quarter	Total	Residential	Commercial	Industrial*	Other*
1960					
First	$ 2,033,980	$ 1,304,810	$ 297,337	$ 385,053	$ 46,780
Second	1,278,858	701,603	153,028	389,985	34,242
Third	860,134	358,237	83,575	388,519	29,803
Fourth	1,431,263	803,400	186,039	399,440	42,384
1965					
First	2,688,389	1,667,580	438,864	528,598	53,347
Second	1,713,833	909,991	230,269	535,235	38,338
Third	1,151,283	461,313	121,320	531,538	37,112
Fourth	1,847,096	986,096	261,769	552,222	47,009
1970					
First	3,742,316	2,197,999	687,117	780,927	76,273
Second	2,342,672	1,136,333	346,748	797,906	61,685
Third	1,624,621	578,747	182,163	803,503	60,208
Fourth	2,573,002	1,294,256	404,418	798,870	75,458
1974					
First	4,962,348	2,637,502	936,945	1,282,042	105,859
Second	3,524,656	1,541,800	550,486	1,346,119	86,251
Third	2,658,833	827,067	334,506	1,386,447	110,813
Fourth	4,096,644	1,893,026	717,363	1,376,531	109,724
1975^{R}					
First	6,192,706	3,303,345	1,241,301	1,507,088	140,972
Second	4,449,583	1,972,484	734,977	1,625,673	116,449
Third	3,396,905	987,079	438,873	1,783,838	187,115
Fourth	5,062,304	2,182,576	887,518	1,828,572	163,638
1976					
First	7,640,244	3,890,616	1,531,385	2,147,371	70,872
Second	5,130,081	1,974,961	781,438	2,323,555	50,127
Third	4,192,685	1,109,426	515,383	2,511,518	56,358
Fourth	6,738,200	2,966,010	1,246,803	2,452,307	73,081
1977					
First	9,847,887	5,157,004	2,044,743	2,540,054	106,087
Second	5,898,652	2,118,485	930,741	2,780,625	68,801
Third	5,032,784	1,220,430	664,815	3,080,794	66,745
Fourth	7,523,878	3,044,890	1,339,590	3,053,202	86,197
1978					
First	11,443,834	5,794,334	2,412,856	3,106,186	130,458
Second	6,946,269	2,533,334	1,125,102	3,213,436	74,397
Third	5,548,952	1,309,307	690,271	3,477,345	72,029
Fourth	8,210,868	3,301,893	1,467,438	3,341,609	99,930
1979					
First	13,317,971	6,544,017	2,744,291	3,860,146	169,518
Second	8,158,475	2,823,066	1,259,409	4,003,476	72,524
Third	6,809,065	1,517,166	796,336	4,427,445	68,117
Fourth	10,661,631	3,948,701	1,823,730	4,753,753	135,448
1980^{R}					
First	16,402,661	7,290,269	3,245,916	5,690,750	175,726
Second	10,062,858	3,365,770	1,567,485	5,041,319	88,284
Third	8,570,836	1,776,745	1,036,752	5,685,694	71,645
Fourth	13,266,679	4,999,311	2,333,007	5,797,458	136,903
1981^{R}					
First	18,801,514	8,306,948	3,745,526	6,558,879	190,161
Second	12,100,242	3,431,510	1,700,873	6,864,699	103,160
Third	10,093,853	1,953,491	1,174,408	6,886,411	79,543
Fourth	15,114,177	5,488,289	2,664,743	6,813,873	147,272
1982					
First	22,757,743	10,471,654	4,812,805	7,240,217	233,067
Second	13,254,772	4,428,038	2,205,519	6,505,943	115,272
Third	10,850,545	2,373,026	1,455,680	6,930,873	90,966
Fourth	16,527,623	6,427,962	3,192,100	6,711,953	195,608

***Prior to 1976 "Other" electric generation (see Table 7-10) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.**
R—Revised.

REVENUES

TABLE 7-3
GAS UTILITY INDUSTRY REVENUES, BY STATE, 1960-1982[a]

(Thousands)

Division and State	1960	1965	1970	1975	1980[R]	1981[R]	1982
United States	**$5,617,387**	**$7,406,978**	**$10,282,611**	**$19,101,498**	**$48,303,034**	**$56,109,786**	**$63,390,683**
New England	**212,719**	**274,937**	**377,666**	**700,071**	**1,479,111**	**1,796,328**	**2,198,494**
Connecticut	52,198	66,653	98,178	178,480	366,348	460,457	570,263
Maine	3,608	3,845	4,013	5,983	11,155	14,333	19,355
Massachusetts	131,588	171,040	228,224	425,411	905,414	1,076,670	1,315,223
New Hampshire	5,126	7,336	10,328	17,190	40,569	51,015	63,111
Rhode Island1	18,803	24,599	34,360	65,982	132,190	164,677	200,708
Vermont	1,396	1,464	2,563	7,025	23,435	29,176	29,834
Middle Alantic	**1,068,271**	**1,342,428**	**1,753,799**	**2,940,846**	**6,603,468**	**7,830,383**	**8,982,742**
New Jersey	192,315	268,622	372,672	594,560	1,408,766	1,774,743	2,047,299
New York	462,574	570,984	720,609	1,248,149	2,663,655	3,063,882	3,730,089
Pennsylvania	413,382	502,822	660,518	1,098,137	2,531,047	2,991,758	3,205,354
East North Central	**1,394,218**	**1,995,933**	**2,888,886**	**5,033,327**	**11,584,314**	**12,838,614**	**14,486,676**
Illinois	393,707	555,763	829,369	1,504,405	3,588,071	3,888,257	4,401,420
Indiana	135,593	218,436	356,270	530,454	1,341,428	1,567,877	1,798,135
Michigan	290,178	434,292	651,318	1,269,106	2,602,792	2,921,472	3,148,746
Ohio	483,987	625,011	789,008	1,254,154	2,875,396	3,124,590	3,598,797
Wisconsin	90,753	162,431	262,921	475,208	1,176,627	1,336,418	1,539,578
West North Central	**540,961**	**701,789**	**982,976**	**1,585,864**	**3,778,158**	**4,229,776**	**5,169,173**
Iowa	96,062	127,197	180,607	311,364	718,370	832,395	966,321
Kansas	100,563	125,238	178,128	282,119	815,547	924,329	999,672
Minnesota	113,648	156,680	218,398	352,170	750,995	912,886	1,154,231
Missouri	144,596	187,021	267,726	406,752	992,492	999,445	1,333,666
Nebraska	66,334	77,722	101,542	169,010	356,352	401,304	500,984
North Dakota	5,712	10,566	15,540	31,037	77,168	81,319	105,948
South Dakota	14,046	17,365	21,035	33,412	67,234	78,098	108,351
South Atlantic	**476,032**	**631,577**	**941,975**	**1,538,752**	**4,112,603**	**5,117,031**	**5,691,751**
Delaware	10,102	15,881	22,672	33,229	78,336	122,982	127,169
District of Columbia	26,868	29,602	34,635	54,671	120,837	152,082	183,197
Florida	47,537	73,357	120,609	146,526	611,114	769,936	880,645
Georgia	104,603	127,728	191,637	349,550	950,915	1,102,796	1,261,756
Maryland	87,037	113,321	163,999	272,830	598,324	750,214	864,818
North Carolina	30,669	54,773	106,051	165,659	495,459	673,130	667,981
South Carolina	23,344	42,736	74,858	130,662	354,351	452,475	454,262
Virginia	67,569	89,235	126,840	206,109	482,080	603,838	714,884
West Virginia	78,303	84,944	100,674	179,516	421,187	489,578	537,039
East South Central	**312,695**	**365,717**	**509,350**	**775,705**	**2,306,091**	**2,612,020**	**2,923,660**
Alabama	93,652	113,647	149,962	237,710	698,762	793,306	825,535
Kentucky	80,075	91,310	127,787	199,738	509,455	574,089	681,905
Mississippi	60,254	68,331	100,383	134,730	517,786	580,087	640,253
Tennessee	78,714	92,429	131,218	203,527	580,088	664,538	775,967
West South Central	**642,063**	**771,223**	**1,066,433**	**2,953,148**	**8,951,915**	**11,033,904**	**12,006,113**
Arkansas	58,303	83,252	125,928	175,862	408,334	461,642	703,422
Louisiana	141,741	165,926	219,303	386,609	1,215,482	1,686,094	1,722,596
Oklahoma	88,272	103,263	127,367	328,817	965,728	1,076,562	1,295,776
Texas	353,747	418,782	593,835	2,061,860	6,362,371	7,809,606	8,284,319
Mountain	**246,824**	**325,757**	**456,593**	**920,668**	**2,393,490**	**2,656,388**	**2,992,855**
Arizona	52,255	65,722	95,423	171,773	384,777	455,778	500,469
Colorado	69,462	88,404	120,563	241,901	713,628	748,452	916,180
Idaho	11,555	19,776	28,990	75,818	182,600	179,892	182,591
Montana	22,159	32,003	42,871	82,021	163,917	188,031	230,644
Nevada	8,786	17,544	32,383	79,858	196,982	281,843	237,614
New Mexico	38,804	43,638	56,975	125,617	333,855	355,181	390,430
Utah	32,269	43,572	55,273	101,164	284,725	295,740	337,069
Wyoming	11,534	15,098	24,115	42,516	133,006	151,471	197,858
Pacific	**723,604**	**997,617**	**1,304,933**	**2,653,117**	**7,093,884**	**7,995,342**	**8,939,219**
Alaska	b	4,575	11,678	24,829	38,725	44,561	48,124
California	653,350	875,876	1,117,573	2,193,048	6,076,193	6,919,776	7,790,174
Hawaii	5,003	6,053	7,714	24,125	45,162	50,069	48,228
Oregon	24,806	42,169	65,096	156,703	354,502	369,619	401,392
Washington	40,445	68,944	102,872	254,412	579,302	611,317	651,301

a. Excludes revenues from sales for resale.
b. Not available.
R—Revised.

TABLE 7-4
GAS UTILITY INDUSTRY REVENUES FROM GAS FOR RESALE, BY STATE, 1960-1982*

(Thousands)

Division and State	1960	1965	1970	1975	1980^{R}	1981^{R}	1982
United States	**$3,165,820**	**$4,255,066**	**$6,217,662**	**$11,573,752**	**$37,910,013**	**$45,945,819**	**$52,342,615**
New England	**82,195**	**110,807**	**168,196**	**382,550**	**851,449**	**992,510**	**1,327,092**
Connecticut			51,891	125,226	222,022	265,241	341,998
Maine			0	0	0	0	0
Massachusetts			94,590	216,069	529,965	610,692	840,325
New Hampshire			5,319	5,744	17,577	21,211	29,697
Rhode Island			16,396	34,645	81,885	95,366	115,072
Vermont			0	866	0	0	0
Middle Atlantic	**575,739**	**777,878**	**1,057,060**	**1,761,307**	**5,815,523**	**7,046,781**	**8,588,682**
New Jersey			215,211	365,302	1,250,773	1,500,141	1,814,566
New York			371,895	532,961	1,829,091	2,318,382	2,905,624
Pennsylvania			469,951	863,044	2,735,659	3,228,258	3,868,492
East North Central	**699,808**	**1,151,990**	**1,940,570**	**3,596,246**	**10,687,835**	**12,858,004**	**13,900,715**
Illinois			529,299	1,041,633	3,412,478	4,092,594	4,703,911
Indiana			188,301	292,665	988,871	1,260,454	1,481,060
Michigan			278,232	659,019	1,804,423	2,331,387	1,847,815
Ohio			756,382	1,144,706	3,145,106	3,684,648	4,366,290
Wisconsin			188,355	458,223	1,336,957	1,488,921	1,501,639
West North Central	**251,580**	**306,416**	**439,274**	**803,046**	**2,198,971**	**2,647,389**	**3,342,725**
Iowa			105,106	202,852	517,052	533,589	624,514
Kansas			52,935	89,538	265,146	431,770	456,578
Minnesota			100,758	178,677	554,425	636,116	813,125
Missouri			127,783	231,990	628,970	773,809	1,083,618
Nebraska			42,394	77,384	174,217	205,393	273,267
North Dakota			2,186	7,695	22,277	21,704	26,082
South Dakota			8,114	14,910	36,884	45,008	65,541
South Atlantic	**487,720**	**597,386**	**748,392**	**1,094,146**	**3,581,501**	**4,322,159**	**4,699,559**
Delaware			680	1,170	2,894	4,856	6,033
District of Columbia			0	0	0	0	0
Florida			24,297	54,786	218,749	248,266	277,062
Georgia			122,268	217,592	709,353	922,717	1,021,436
Maryland			81,983	159,003	480,609	593,360	684,140
North Carolina			38,167	96,134	440,145	572,122	580,496
South Carolina			75,078	86,854	313,732	413,592	369,947
Virginia			99,200	177,878	542,737	597,391	750,840
West Virginia			306,719	300,729	873,282	969,855	1,009,605
East South Central	**343,356**	**348,642**	**495,572**	**752,002**	**2,695,523**	**3,446,173**	**3,922,570**
Alabama			79,205	140,282	495,051	614,146	655,720
Kentucky			156,277	169,609	528,686	639,171	742,888
Mississippi			92,771	163,268	632,103	918,516	975,924
Tennessee			167,320	278,843	1,039,683	1,274,340	1,538,038
West South Central	**238,630**	**236,059**	**324,987**	**765,273**	**4,322,831**	**6,142,569**	**6,683,710**
Arkansas			6,684	9,328	34,680	[illegible],854	41,655
Louisiana			192,241	354,067	1,383,886	2,023,663	2,347,745
Oklahoma			33,698	91,809	422,361	662,057	649,782
Texas			92,363	310,069	2,481,904	3,423,995	3,644,528
Mountain	**375,843**	**437,321**	**622,947**	**1,349,007**	**4,434,173**	**5,062,741**	**6,014,761**
Arizona			482,102	935,305	3,093,184	3,557,928	4,276,397
Colorado			65,331	163,200	657,917	690,421	819,759
Idaho			24,852	96,221	228,724	277,996	246,779
Montana			3,435	7,289	25,957	23,933	25,649
Nevada			2,950	12,147	36,042	34,475	47,396
New Mexico			20,924	34,447	111,849	141,290	180,120
Utah			4,186	3,113	15,333	23,638	32,877
Wyoming			19,168	97,285	265,167	313,060	385,784
Pacific	**110,949**	**288,567**	**420,664**	**1,070,175**	**3,322,207**	**3,426,493**	**3,862,801**
Alaska			0	0	22,677	0	0
California			249,666	294,546	1,199,764	1,390,171	1,754,508
Hawaii			0	0	0	0	0
Oregon			120,229	598,295	1,665,022	1,569,362	1,635,292
Washington			50,769	177,334	434,744	466,960	473,001

*Includes natural gas only prior to 1970 and state breakdowns not available prior to 1970.
R—Revised.

REVENUES

TABLE 7-5
GAS UTILITY INDUSTRY REVENUES, BY STATE AND CLASS OF SERVICE, 1982

(Thousands)

Division and State	Total	Class of Service			
		Residential	Commercial	Industrial*	Other
United States	**$63,390,683**	**$23,700,680**	**$11,666,104**	**$27,388,986**	**$634,913**
New England	**2,198,494**	**1,146,470**	**644,045**	**392,915**	**15,064**
Connecticut	570,263	280,373	166,821	122,630	439
Maine	19,355	5,052	8,730	5,573	0
Massachusetts	1,315,223	700,916	400,952	199,959	13,396
New Hampshire	63,111	31,342	23,289	8,030	450
Rhode Island	200,708	117,818	37,794	45,096	0
Vermont	29,834	10,969	6,459	11,627	779
Middle Atlantic	**8,982,742**	**4,721,646**	**1,769,633**	**2,304,858**	**186,605**
New Jersey	2,047,299	1,037,657	498,402	510,099	1,141
New York	3,730,089	2,211,228	675,977	710,245	132,639
Pennsylvania	3,205,354	1,472,761	595,254	1,084,514	52,825
East North Central	**14,486,676**	**6,935,588**	**3,000,561**	**4,508,276**	**42,251**
Illinois	4,401,420	2,160,833	967,236	1,272,076	1,275
Indiana	1,798,135	686,339	282,876	820,588	8,332
Michigan	3,148,746	1,605,879	752,063	790,541	263
Ohio	3,598,797	1,816,707	719,823	1,031,085	31,182
Wisconsin	1,539,578	665,830	278,563	593,986	1,199
West North Central	**5,169,173**	**2,281,666**	**1,249,653**	**1,621,829**	**16,025**
Iowa	966,321	397,758	227,617	339,751	1,195
Kansas	999,672	331,086	167,887	492,502	8,197
Minnesota	1,154,231	531,801	238,098	382,479	1,853
Missouri	1,333,666	701,219	406,203	221,734	4,510
Nebraska	500,984	214,789	127,204	158,743	248
North Dakota	105,948	50,422	48,960	6,551	15
South Dakota	108,351	54,591	33,684	20,069	7
South Atlantic	**5,691,751**	**1,874,848**	**1,189,829**	**2,590,104**	**36,970**
Delaware	127,169	40,419	21,144	61,958	3,648
District of Columbia	183,197	85,196	98,001	0	0
Florida	880,645	91,568	135,657	639,946	13,474
Georgia	1,261,756	461,887	253,155	545,453	1,261
Maryland	864,818	418,282	174,090	272,204	242
North Carolina	667,981	174,766	123,512	365,672	4,031
South Carolina	454,262	101,225	78,085	272,104	2,848
Virginia	714,884	276,834	200,463	226,368	11,219
West Virginia	537,039	224,671	105,722	206,399	247
East South Central	**2,923,660**	**887,034**	**486,528**	**1,492,772**	**57,326**
Alabama	825,535	264,648	113,055	445,968	1,864
Kentucky	681,905	310,224	133,871	215,199	22,611
Mississippi	640,253	129,744	60,738	425,077	24,694
Tennessee	775,967	182,418	178,864	406,528	8,157
West South Central	**12,006,113**	**1,917,745**	**1,037,718**	**8,856,253**	**194,397**
Arkansas	703,422	171,474	105,060	425,957	931
Louisiana	1,722,596	330,267	123,685	1,213,935	54,709
Oklahoma	1,295,776	272,597	152,289	869,233	1,657
Texas	8,284,319	1,143,407	656,684	6,347,128	137,100
Mountain	**2,992,855**	**1,193,628**	**716,507**	**1,011,497**	**71,223**
Arizona	500,469	172,588	101,551	218,130	8,200
Colorado	916,180	417,530	293,126	201,499	4,025
Idaho	182,591	47,426	49,136	86,029	0
Montana	230,644	89,492	66,976	63,686	10,490
Nevada	237,614	91,110	48,646	96,326	1,532
New Mexico	390,430	132,829	64,157	154,291	39,153
Utah	337,069	177,946	54,820	104,225	78
Wyoming	197,858	64,707	38,095	87,311	7,745
Pacific	**8,939,219**	**2,742,055**	**1,571,630**	**4,610,482**	**15,052**
Alaska	48,124	18,701	6,268	23,155	0
California	7,790,174	2,385,365	1,266,762	4,125,089	12,958
Hawaii	48,228	11,132	10,852	26,244	0
Oregon	401,392	129,520	102,782	169,090	0
Washington	651,301	197,337	184,966	266,904	2,094

*Includes Electric Generation—See Table 7-10 for breakout.

TABLE 7-6
GAS UTILITY INDUSTRY FIRM AND INTERRUPTIBLE GAS REVENUES, BY STATE, 1982

(Thousands)

	Commercial			Industrial		
Division and State	Total	Firm	Interruptible	Total	Firm	Interruptible
United States	**$11,666,104**	**$10,816,786**	**$849,318**	**$27,388,986**	**$15,688,935**	**$11,700,051**
New England	**644,045**	**536,887**	**107,158**	**392,915**	**209,845**	**183,070**
Connecticut	166,821	134,149	32,672	122,630	83,053	39,577
Maine	8,730	8,730	0	5,573	5,573	0
Massachusetts	400,952	326,971	73,981	199,959	95,955	104,004
New Hampshire	23,289	23,289	0	8,030	5,164	2,866
Rhode Island	37,794	37,289	505	45,096	19,676	25,420
Vermont	6,459	6,459	0	11,627	424	11,203
Middle Atlantic	**1,769,633**	**1,716,452**	**53,181**	**2,304,858**	**1,685,336**	**619,522**
New Jersey	498,402	465,591	32,811	510,099	241,749	268,350
New York	675,977	661,184	14,793	710,245	500,946	209,299
Pennsylvania	595,254	589,677	5,577	1,084,514	942,641	141,873
East North Central	**3,000,561**	**2,943,199**	**57,362**	**4,508,276**	**3,619,462**	**888,814**
Illinois	967,236	965,924	1,312	1,272,076	1,072,186	199,890
Indiana	282,876	267,463	15,413	820,588	698,595	121,993
Michigan	752,063	745,564	6,499	790,541	616,382	174,159
Ohio	719,823	714,437	5,386	1,031,085	952,334	78,751
Wisconsin	278,563	249,811	28,752	593,986	279,965	314,021
West North Central	**1,249,653**	**1,040,962**	**208,691**	**1,621,829**	**658,741**	**963,088**
Iowa	227,617	190,920	36,697	339,751	228,587	111,164
Kansas	167,887	113,696	54,191	492,502	142,835	349,667
Minnesota	238,098	208,716	29,382	382,479	134,392	248,087
Missouri	406,203	337,561	68,642	221,734	61,837	159,897
Nebraska	127,204	122,129	5,075	158,743	86,715	72,028
North Dakota	48,960	36,919	12,041	6,551	319	6,232
South Dakota	33,684	31,021	2,663	20,069	4,056	16,013
South Atlantic	**1,189,829**	**1,064,219**	**125,610**	**2,590,104**	**1,229,091**	**1,361,013**
Delaware	21,144	20,200	944	61,958	50,955	11,003
District of Columbia	98,001	73,432	24,569	0	0	0
Florida	135,657	131,158	4,499	639,946	76,959	562,987
Georgia	253,155	252,087	1,068	545,453	78,786	466,667
Maryland	174,090	134,116	29,974	272,204	184,969	87,235
North Carolina	123,512	123,512	0	365,672	329,278	36,394
South Carolina	78,085	60,732	17,353	272,104	117,258	154,846
Virginia	200,463	166,102	34,361	226,368	185,333	41,035
West Virginia	105,722	102,880	2,842	206,399	205,553	846
East South Central	**486,528**	**455,055**	**31,473**	**1,492,772**	**981,393**	**511,379**
Alabama	113,055	99,558	13,497	445,968	240,921	205,047
Kentucky	133,871	126,184	7,687	215,199	105,851	109,348
Mississippi	60,738	60,732	6	425,077	414,792	10,285
Tennessee	178,864	168,581	10,283	406,528	219,829	186,699
West South Central	**1,037,718**	**1,018,813**	**18,905**	**8,856,253**	**6,352,550**	**2,503,703**
Arkansas	105,060	104,370	690	425,957	370,568	55,389
Louisiana	123,685	123,628	57	1,213,935	1,023,473	190,462
Oklahoma	152,289	137,492	14,797	869,233	560,446	308,787
Texas	656,684	653,323	3,361	6,347,128	4,398,063	1,949,065
Mountain	**716,507**	**709,673**	**6,334**	**1,011,497**	**586,473**	**425,024**
Arizona	101,551	101,551	0	218,130	217,545	585
Colorado	293,126	291,966	1,160	201,499	60,479	141,020
Idaho	49,136	47,549	1,587	86,029	76,992	9,037
Montana	66,976	65,457	1,519	63,686	5,222	58,464
Nevada	48,646	48,646	0	96,326	96,326	0
New Mexico	64,157	61,742	2,415	154,291	97,095	57,196
Utah	54,820	54,820	0	104,225	19,621	84,604
Wyoming	38,095	37,942	153	87,311	13,193	74,118
Pacific	**1,571,630**	**1,331,526**	**240,104**	**4,610,481**	**366,044**	**4,244,438**
Alaska	6,268	6,268	0	23,155	6,609	16,546
California	1,266,762	1,075,148	191,614	4,125,089	115,301	4,009,788
Hawaii	10,852	10,852	0	26,244	26,244	0
Oregon	102,782	99,451	3,331	169,090	87,266	81,824
Washington	184,966	139,807	45,159	266,904	130,624	136,280

TABLE 7-7
REVENUES FROM GAS UTILITY INDUSTRY SALES, BY TYPE OF INDUSTRY CLASSIFICATION, 1960-1982

(Thousands)

Industry Classification	1960	1965	1970	1975	1980R	1981R	1982
Agriculture, forestry and fisheries	$ 3,447	$ 4,553	$ 13,373	$ 41,816	$ 137,952	$ 132,385	$ 265,825
Petroleum and natural gas production	13,023	23,092	29,116	67,556	90,824	166,720	101,933
Other mining	10,738	18,697	18,744	44,664	214,732	242,389	214,693
Electric services[a]	366,946	461,037	750,879	1,482,516	6,750,928	8,524,846	9,296,717
Other transportation, communications and public utilities	6,212	12,867	36,820	99,971	276,149	275,032	301,946
Hotels, rooming houses, and camps	5,225	12,317	34,089	85,216	97,974	114,461	149,258
Laundries, cleaning and dyeing	1,495	7,969	12,508	30,095	76,146	87,472	126,732
Other services	11,615	25,434	82,737	274,992	1,025,544	1,170,289	1,638,312
Other non-manufacturing	13,826	32,472	105,186	228,982	571,193	665,177	1,156,456
Ordnance	5,362	5,938	14,216	b	b	b	b
Food and kindred products	57,331	88,419	140,016	352,172	991,498	1,229,473	1,408,237
Textile products, apparel, fabrics, etc.	7,459	16,613	32,563	58,468	191,077	222,628	252,207
Furniture, lumber and other wood products	7,452	18,713	25,097	65,210	166,086	188,140	206,600
Paper and allied products	54,020	80,392	137,086	258,795	760,852	965,790	924,858
Carbon black	2,435	9,198	12,613	26,646	65,844	77,997	54,240
Chemicals and allied products (except carbon black)	154,556	208,820	303,261	821,397	2,158,091	2,897,088	2,867,608
Petroleum refining	87,605	88,023	167,312	502,402	1,333,883	1,476,012	1,292,800
Rubber and miscellaneous plastic products	5,454	12,314	20,483	47,694	164,015	213,443	231,529
Glass products	59,693	73,844	92,362	183,233	524,302	579,482	614,314
Cement	47,540	52,129	81,001	130,210	135,038	123,332	60,388
Clay products, pottery, etc.	49,764	60,873	63,707	111,670	250,795	254,434	239,043
Other stone products and miscellaneous	11,335	26,502	61,841	103,389	277,604	311,433	257,490
Primary iron and steel industries	149,646	232,470	313,595	568,959	1,533,627	1,960,471	1,602,855
Primary non-ferrous industries	58,181	88,218	89,949	268,145	768,053	852,418	739,301
Fabricated metal products, machinery equipment and supplies	55,360	93,760	162,290	319,800	729,513	836,789	954,961
Transportation equipment	30,767	53,093	92,514	194,678	286,168	312,308	348,277
Other manufacturing	13,053	23,883	45,777	129,238	377,918	397,329	404,198
Public Administration	c	c	c	74,956	227,343	268,466	368,739
Unclassified	e	e	e	e	e	e	6,859,471
Total (Sum)[a]	**$1,289,540**	**$1,831,640**	**$2,939,135**	**$ 6,572,870**	**$20,183,149**	**$24,545,804**	**$32,938,988**
Total Commercial, Industrial and "Other" revenues of co.'s reporting this table	**$1,514,995**	**$2,123,185**	**$3,028,083**	**$ 9,473,153**	**$23,675,795**	**$28,759,666**	**$29,736,963**
Total Gas Utility Industry Commercial, Industrial and "Other" revenues[d]	**$1,716,509**	**$2,323,769**	**$3,454,830**	**$10,628,839**	**$30,870,939**	**$36,929,548**	**$39,690,003**

a. Includes the following "revenues from transfers of gas for electric generation not included in Total Commercial, Industrial and "Other" revenues of companies reporting this table or in Total Gas Utility Industry revenues. Such "revenues" represent credits by the electric department to the gas department of combination gas and electric companies. "Revenues" in thousands of dollars are: 1960-73,887; 1965-72,919; 1970-92,443; 1975-293,936; 1980-1,173,364; 1981-1,213,728; and 1982—1,197,237.

b. Classification eliminated.

c. New classification in 1972.

d. Includes Industrial and "Other" sales only prior to 1971.

e. New classification in 1982.

R—Revised.

TABLE 7-8

GAS UTILITY INDUSTRY REVENUES, BY TYPE OF INDUSTRY CLASSIFICATION AND BY DIVISION, 1982

(Thousands)

Industry Classification	Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Agriculture, forestry and fisheries	$ 265,825	$ 2,314	$ 7,584	$ 32,246	$ 49,912	$ 1,681	$ 647	$ 94,737	$ 8,571	$ 68,133
Petroleum and natural gas production	101,933	0	16	1,065	16,619	13	4,608	19,088	6,415	54,109
Other mining	214,693	312	257	16,047	1,092	33,834	241	101,369	38,534	23,007
Electric services*	9,296,717	100,396	880,318	121,087	91,060	396,397	207,905	4,382,950	354,178	2,762,426
Other transportation, communication, and public utilities	301,946	9,573	12,957	78,465	78,046	7,631	4,969	15,910	15,192	79,203
Hotels, rooming houses, and camps	149,258	5,911	24,248	41,137	6,791	5,625	3,162	2,358	1,348	58,678
Laundries, cleaning and dyeing	126,732	5,672	6,954	34,939	1,095	5,362	5,193	1,320	26	66,171
Other services	1,638,312	66,304	178,209	682,123	91,180	75,606	50,147	33,160	27,795	433,788
Other non-manufacturing	1,156,456	106,616	152,444	459,962	42,126	34,252	32,769	5,520	16,377	306,390
Food and kindred products	1,408,237	19,711	130,737	440,891	205,361	85,577	41,449	39,269	71,055	374,187
Textile products, apparel, fabrics, etc.	252,207	15,445	28,903	14,259	501	150,379	21,999	622	262	19,837
Furniture, lumber, and other wood products	206,600	547	10,351	23,994	3,086	7,798	44,320	63,956	1,715	50,833
Paper and allied products	924,858	17,106	97,387	215,625	22,221	153,387	182,096	61,123	33,707	142,206
Carbon black	54,240	241	0	2,025	26,269	2,536	1,252	20,069	0	1,848
Chemicals and allied products (except carbon black)	2,867,608	14,162	149,938	460,206	231,361	468,436	148,577	1,143,920	67,104	183,904
Petroleum refining	1,292,800	0	42,652	69,010	55,229	28,436	25,003	595,918	30,264	446,288
Rubber and miscellaneous plastic products	231,529	3,967	25,138	75,143	14,053	22,222	22,534	45,010	4,459	19,003
Glass products	614,314	16,389	183,541	161,975	11,253	74,850	27,991	29,080	0	109,235
Cement	60,388	227	1,256	3,835	5,236	13,294	4,709	10,969	5,432	15,430
Clay products, pottery, etc.	239,043	3,126	28,686	47,720	32,209	76,892	13,427	4,249	4,725	28,009
Other stone products and miscellaneous	257,490	7,323	46,707	45,491	22,141	62,465	2,488	1,090	9,497	60,288
Primary iron and steel industries	1,602,855	15,414	315,876	854,611	62,818	136,269	105,804	1,981	35,777	74,305
Primary non-ferrous industries	739,301	11,938	116,793	238,707	21,927	37,324	51,497	92,214	78,521	90,380
Fabricated metal products, machinery equipment and supplies	954,961	41,846	147,145	462,270	65,559	44,137	46,167	14,257	6,922	126,658
Transportation equipment	348,277	6,360	41,165	180,404	26,885	14,635	14,191	4,297	2,247	58,093
Other manufacturing	404,198	20,997	71,920	144,198	17,849	28,992	33,096	9,739	7,331	70,076
Public administration	368,739	12,652	30,275	63,027	21,673	75,759	25,779	23,666	11,124	104,784
Unclassified	6,859,471	240,133	1,983,741	1,421,414	1,058,284	949,675	179,805	292,440	501,225	232,754
Total (Sum)*	**$32,938,988**	**$744,682**	**$4,715,198**	**$6,391,876**	**$2,281,836**	**$2,993,464**	**$1,301,825**	**$7,110,281**	**$1,339,803**	**$6,060,023**
Total Commercial, Industrial and "Other" revenues of co.'s reporting this table	**$29,736,963**	**$717,338**	**$3,960,126**	**$6,364,555**	**$2,261,537**	**$2,951,411**	**$1,245,118**	**$5,047,095**	**$1,199,535**	**$5,990,248**
Total Gas Utility Industry Commercial, Industrial and "Other" revenues	**$39,690,003**	**$1,052,024**	**$4[illegible]1,096**	**$7,551,088**	**$2,887,507**	**$3,816,903**	**$2,036,626**	**$10,088,368**	**$1,799,227**	**$6,197,164**

*Includes the following "revenues" from transfers of gas for electric generation not included in Total Commercial, Industrial and "Other" revenues of companies reporting this table or in Total Gas Utility Industry revenues. Such "revenues" represent credits by the electric department of combination gas and electric companies.

Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
$1,197,237	$0	$760,938	$12,488	$5,649	$30,948	$2,803	$297,245	$87,166	$0

REVENUES

TABLE 7-9
GAS UTILITY INDUSTRY REVENUES FROM GAS USED FOR ELECTRIC GENERATION, 1960-1982[a]

(Thousands)

	Revenue					
	Industrial[b]					
Year	Firm	Interruptible	Other	Total Revenue	Credits[c]	Total Revenue and Credits
1960	$228,474		$ 64,585	$ 293,059	$ 73,887	$ 366,946
1961	247,811		75,437	323,248	74,988	398,236
1962	264,637		86,810	351,447	75,747	427,194
1963	282,932		96,808	379,740	73,517	453,257
1964	304,974		107,193	412,167	77,919	490,086
1965	293,999		94,119	388,118	72,919	461,037
1966	325,605		114,051	439,656	73,073	512,729
1967	346,912		96,643	443,555	75,298	518,853
1968	380,995		117,159	498,154	80,816	578,970
1969	426,325		112,454	538,779	71,747	610,526
1970	520,882		137,553	658,435	92,443	750,878
1971	$ 237,111	$ 335,539	160,035	732,685	201,213	933,898
1972	277,344	294,885	201,865	774,094	193,655	967,749
1973	185,106	309,653	214,419	709,178	197,418	906,596
1974	271,516	395,889	225,124	892,529	269,148	1,161,677
1975	352,660	473,951	361,969	1,188,580	293,936	1,482,516
1976	594,784	1,075,885	d	1,670,669	315,935	1,986,604
1977	779,919	1,535,133	d	2,315,052	379,274	2,694,326
1978	953,406	1,452,434	d	2,405,840	330,572	2,736,412
1979	1,424,871	2.063,626	d	3,488,497	721,948	4,210,445
1980[R]	2,417,592	3,159,972	d	5,577,564	1,173,364	6,750,928
1981[R]	3,037,233	4,273,885	d	7,311,118	1,213,728	8,524,846
1982	3,420,767	4,678,713	d	8,099,480	1,197,237	9,296,717

a. Excludes revenues from direct sales by producers to straight electric utilities.

b. No breakdown available prior to 1971.

c. Represents "Revenues" from transfers of gas for electric generation. Such "Revenues" are credits by the electric department to the gas department of combination gas and electric companies.

d. Other now included with Industrial to conform to the definition of industrial services.

R—Revised.

TABLE 7-10
GAS UTILITY INDUSTRY REVENUES, GAS USED FOR ELECTRIC GENERATION, BY STATE, 1982[a]

(Thousands)

	Industrial Revenue				Total Revenue and
Division and State	Firm	Interruptible	Total	Credits[b]	Credits
United States	**$3,420,767**	**$4,678,713**	**$8,099,480**	**$1,197,237**	**$9,296,717**
New England	**37**	**100,359**	**100,396**	**0**	**100,396**
Connecticut	0	0	0	0	0
Maine	0	0	0	0	0
Massachusetts	37	97,116	97,153	0	97,153
New Hampshire	0	0	0	0	0
Rhode Island	0	3,243	3,243	0	3,243
Vermont	0	0	0	0	0
Middle Atlantic	**19,786**	**99,594**	**119,380**	**760,938**	**880,318**
New Jersey	0	99,041	99,041	184,226	283,267
New York	1,438	0	1,438	576,555	577,993
Pennsylvania	18,348	553	18,901	157	19,058
East North Central	**69,859**	**38,740**	**108,599**	**12,488**	**121,087**
Illinois	43,269	5,497	48,766	1,712	50,478
Indiana	493	0	493	9,082	9,575
Michigan	22,656	15,067	37,723	0	37,723
Ohio	3,215	53	3,268	1,060	4,328
Wisconsin	226	18,123	18,349	634	18,983
West North Central	**8,836**	**76,575**	**85,411**	**5,649**	**91,060**
Iowa	111	5,557	5,668	1,200	6,868
Kansas	6,259	57,483	63,742	1,808	65,550
Minnesota	36	7,443	7,479	866	8,345
Missouri	35	5,339	5,374	1,745	7,119
Nebraska	2,395	687	3,082	0	3,082
North Dakota	0	66	66	0	66
South Dakota	0	0	0	30	30
South Atlantic	**768**	**364,681**	**365,449**	**30,948**	**396,397**
Delaware	0	0	0	16,592	16,592
District of Columbia	0	0	0	0	0
Florida	188	356,269	356,457	0	356,457
Georgia	0	6,902	6,902	0	6,902
Maryland	0	949	949	2,240	3,189
North Carolina	24	12	36	0	36
South Carolina	556	1	557	1,447	2,004
Virginia	0	0	0	10,669	10,669
West Virginia	0	548	548	0	548
East South Central	**151,142**	**53,960**	**205,102**	**2,803**	**207,905**
Alabama	78	28	106	0	106
Kentucky	0	0	0	1,645	1,645
Mississippi	151,064	53,926	204,990	504	205,494
Tennessee	0	6	6	654	660
West South Central	**2,974,268**	**1,111,437**	**4,085,705**	**297,245**	**4,382,950**
Arkansas	85,098	5,958	91,056	0	91,056
Louisiana	476,587	43,619	520,206	149,768	669,974
Oklahoma	280,087	60,803	340,890	71	340,961
Texas	2,132,496	1,001,057	3,133,553	147,406	3,280,959
Mountain	**195,290**	**71,722**	**267,012**	**87,166**	**354,178**
Arizona	85,165	342	85,507	43,679	129,186
Colorado	6,418	14,735	21,153	14,984	36,137
Idaho	0	0	0	0	0
Montana	0	243	243	555	798
Nevada	69,857	0	69,857	27,904	97,761
New Mexico	33,850	56,402	90,252	0	90,252
Utah	0	0	0	0	0
Wyoming	0	0	0	44	44
Pacific	**781**	**2,761,645**	**2,762,426**	**0**	**2,762,426**
Alaska	0	16,546	16,546	0	16,546
California	0	2,744,635	2,744,635	0	2,744,635
Hawaii	0	0	0	0	0
Oregon	0	464	464	0	464
Washington	781	0	781	0	781

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a. Excludes revenues from direct sales by producers to electric utilities.

b. Represents "Revenues" from transfers of gas for electric generation. Such "Revenues" are credits by the electric department to the gas department of combination gas and electric companies.

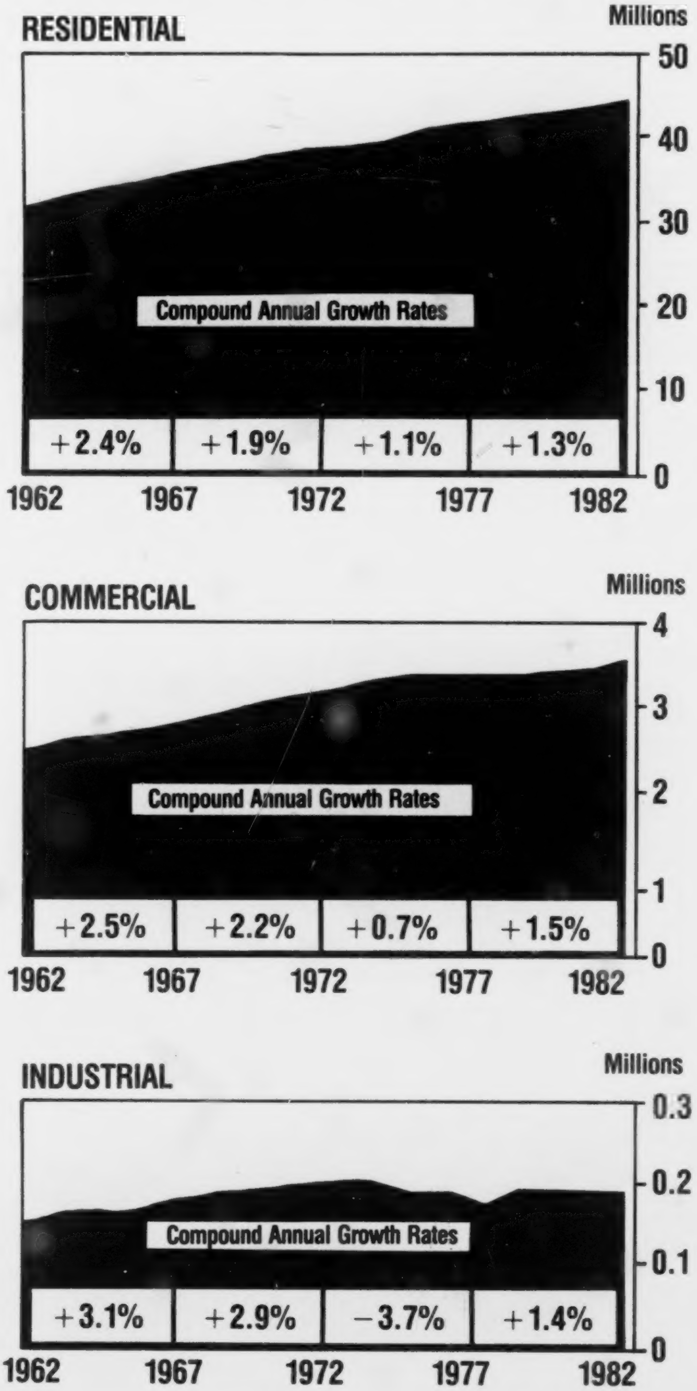
SECTION 8
CUSTOMERS

	Average Customers	
	1982	% Change 82/81
Gas Utility Industry		
(Thousands)		
Total	48,417.1	+1.0
Residential	44,554.3	+0.9
Commercial	3,631.0	+1.9
Industrial	186.1	−0.6
Other	45.7	−1.5

Note: Totals in this section may not add due to independent rounding.

CHART 8-1

GAS UTILITY INDUSTRY CUSTOMERS



REFERENCE: TABLE 8-1

CUSTOMERS

TABLE 8-1
GAS UTILITY INDUSTRY CUSTOMERS, BY CLASS OF SERVICE, YEARLY AVERAGES, 1960-1982[a]

(Thousands)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	33,053.8	30,417.5	2,458.3	140.6	37.4
1961	33,830.5	31,118.2	2,528.9	146.7	36.7
1962	34,683.4	31,893.0	2,597.9	155.9	36.6
1963	35,551.0	32,710.8	2,639.6	161.7	38.9
1964	36,463.3	33,551.2	2,712.2	159.4	40.5
1965	37,337.5	34,340.8	2,789.7	166.2	40.8
1966	38,228.4	35,141.8	2,868.2	173.9	44.5
1967	39,076.5	35,915.1	2,933.6	181.2	46.6
1968	39,930.0	36,691.1	3,003.6	188.1	47.2
1969	40,854.0	37,538.3	3,073.8	192.7	49.2
1970	41,482.1	38,097.0	3,130.9	199.1	55.1
1971	42,241.9	38,788.7	3,199.0	204.7	49.5
1972	42,954.8	39,428.0	3,263.6	209.2	54.1
1973	43,711.2	40,115.5	3,331.4	209.1	55.2
1974	44,267.2	40,626.7	3,392.0	193.8	54.7
1975	44,554.5	40,950.3	3,366.9	183.5	53.8
1976	44,941.4	41,337.6	3,371.5	179.7	52.6
1977	45,274.0	41,682.4	3,371.0	173.3	47.3
1978	45,788.9	42,183.2	3,369.8[c]	189.2[c]	46.7
1979	46,478.3	42,821.3	3,422.8	189.4	44.8
1980[R]	47,225.1	43,489.4	3,499.9	187.2	48.6
1981[R]	47,947.5	44,149.3	3,564.5	187.2	46.5
1982	48,417.1	44,554.3	3,631.0	186.1	45.7

a. Excludes data for Alaska prior to 1961.

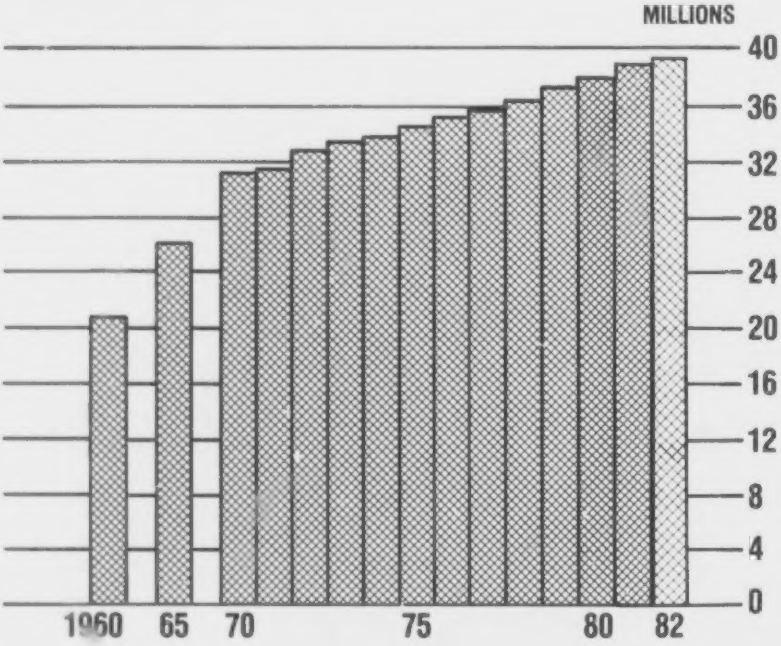
b. Prior to 1976, "Other" electric generation customers included in the "Other" class of service. For 1976 and beyond all electric generation customers included in the Industrial category.

c. Reclassification of customers from commercial to industrial.

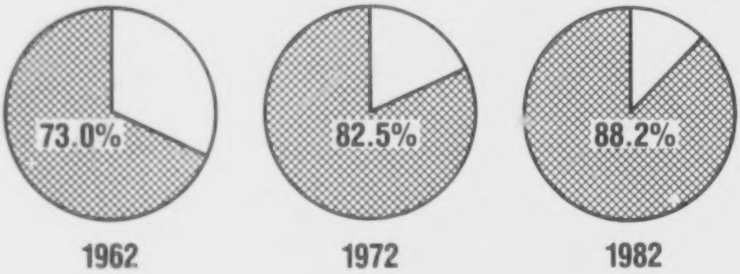
R—Revised.

CHART 8-2

GAS UTILITY HOUSEHEATING CUSTOMERS



PERCENT OF RESIDENTIAL CUSTOMERS USING GAS FOR HOUSEHEATING



REFERENCE: TABLE 8-5

CUSTOMERS

TABLE 8-2
GAS UTILITY INDUSTRY AVERAGE CUSTOMERS, BY QUARTERS, 1960-1982

(Thousands)

Year and Quarter	Total	Residential	Commercial	Industrial*	Other*
1960					
First	32,882	30,220	2,486	139	37
Second	32,685	30,098	2,409	141	37
Third	32,638	30,099	2,363	140	36
Fourth	33,508	30,802	2,524	141	41
1965					
First	37,174	34,156	2,814	163	41
Second	36,963	34,014	2,743	165	41
Third	36,932	34,021	2,704	167	40
Fourth	37,967	34,886	2,870	169	42
1970					
First	41,491	38,063	3,175	199	54
Second	41,419	38,058	3,109	199	53
Third	41,080	37,773	3,054	198	55
Fourth	41,939	38,494	3,186	201	58
1973					
First	43,789	40,135	3,372	208	72
Second	43,422	39,865	3,298	213	45
Third	43,432	39,910	3,268	201	53
Fourth	44,201	40,551	3,387	215	46
1974					
First	44,390	40,713	3,430	194	53
Second	43,978	40,371	3,360	194	53
Third	44,011	40,433	3,331	192	55
Fourth	44,690	40,990	3,446	196	58
1975					
First	44,762	41,099	3,406	194	63
Second	44,386	40,806	3,348	181	51
Third	44,233	40,686	3,322	177	48
Fourth	44,839	41,210	3,393	182	54
1976					
First	45,088	41,437	3,417	181	53
Second	44,924	41,311	3,380	180	53
Third	44,628	41,084	3,313	179	52
Fourth	45,128	41,519	3,377	179	53
1977					
First	45,689	42,005	3,454	175	55
Second	45,047	41,476	3,347	173	51
Third	44,633	41,140	3,282	170	41
Fourth	45,725	42,108	3,400	175	42
1978					
First	45,931	42,285	3,410	190	47
Second	45,761	42,149	3,376	190	47
Third	45,468	41,918	3,316	188	46
Fourth	45,996	42,382	3,378	189	47
1979					
First	46,553	42,869	3,449	190	45
Second	46,410	42,754	3,422	190	45
Third	46,242	42,635	3,375	189	44
Fourth	46,708	43,027	3,446	189	45
1980^{R}					
First	47,394	43,605	3,552	188	49
Second	47,190	43,443	3,511	187	49
Third	46,873	43,210	3,429	186	48
Fourth	47,444	43,699	3,509	187	49
1981^{R}					
First	48,159	44,315	3,609	188	47
Second	47,942	44,140	3,567	188	47
Third	47,573	43,839	3,503	186	45
Fourth	48,116	44,303	3,580	186	47
1982					
First	48,726	44,805	3,687	188	46
Second	48,431	44,560	3,638	187	46
Third	47,992	44,199	3,564	184	45
Fourth	48,519	44,652	3,636	185	46

*Prior to 1976, "Other" electric generation customers included in the "Other" class of service. For 1976 and beyond all electric generation customers included in the Industrial category.

R—Revised.

TABLE 8-3
GAS UTILITY INDUSTRY AVERAGE CUSTOMERS, BY STATE, 1960-1982[a]

(Thousands)

Division and State	1960	1965	1970	1975	1980R	1981R	1982
United States	**33,053.8**	**37,337.5**	**41,482.1**	**44,554.5**	**47,225.1**	**47,947.5**	**48,417.1**
New England	**1,622.6**	**1,641.6**	**1,692.3**	**1,692.5**	**1,734.6**	**1,762.0**	**1,775.3**
Connecticut	376.7	378.8	393.7	392.5	405.0	413.3	417.1
Maine	33.4	28.5	23.4	18.1	15.0	15.3	15.3
Massachusetts	1,002.3	1,024.7	1,055.3	1,055.4	1,079.3	1,093.5	1,098.6
New Hampshire	37.4	40.2	44.1	45.4	50.9	52.2	52.6
Rhode Island	155.9	154.5	161.4	164.6	168.9	172.1	175.9
Vermont	16.9	14.9	14.4	16.6	15.4	15.7	15.9
Middle Atlantic	**7,607.6**	**7,919.6**	**8,192.1**	**8,230.3**	**8,111.4**	**8,155.8**	**8,203.1**
New Jersey	1,504.9	1,640.6	1,763.1	1,815.1	1,849.1	1,850.1	1,869.5
New York	3,953.5	4,076.4	4,125.6	4,102.5	3,925.5	3,943.5	3,963.1
Pennsylvania	2,149.2	2,202.5	2,303.4	2,312.7	2,336.8	2,362.2	2,370.4
East North Central	**7,318.9**	**8,400.3**	**9,508.7**	**10,253.1**	**10,777.8**	**10,903.2**	**10,941.2**
Illinois	2,279.4	2,634.6	2,938.4	3,134.2	3,304.2	3,322.9	3,326.6
Indiana	780.0	933.8	1,084.4	1,187.7	1,241.1	1,269.0	1,282.4
Michigan	1,502.1	1,732.9	2,018.5	2,234.5	2,443.3	2,484.4	2,496.7
Ohio	2,208.4	2,424.2	2,644.5	2,757.8	2,746.5	2,768.1	2,766.8
Wisconsin	549.0	674.8	822.9	939.0	1,042.7	1,058.9	1,068.7
West North Central	**2,655.5**	**3,074.7**	**3,499.9**	**3,820.4**	**4,126.5**	**4,218.6**	**4,251.8**
Iowa	440.4	541.9	642.1	691.6	745.4	756.8	758.5
Kansas	532.8	586.5	643.1	669.8	723.0	752.3	759.2
Minnesota	476.1	560.9	640.9	726.8	809.4	836.8	855.6
Missouri	816.8	933.4	1,068.2	1,167.1	1,218.4	1,226.6	1,224.0
Nebraska	288.4	330.2	367.7	400.5	442.4	451.9	456.0
North Dakota	39.4	47.4	55.2	71.3	85.7	88.6	91.2
South Dakota	61.6	74.4	82.6	93.1	102.4	105.6	107.2
South Atlantic	**2,507.3**	**2,995.6**	**3,528.9**	**3,861.9**	**4,042.2**	**4,134.5**	**4,193.8**
Delaware	64.2	73.3	81.4	82.8	81.5	82.7	83.7
District of Columbia	177.3	172.4	162.8	155.4	148.6	147.8	147.0
Florida	244.1	294.2	370.1	391.8	433.0	443.2	450.2
Georgia	534.9	670.9	804.4	912.3	1,025.9	1,057.9	1,082.7
Maryland	558.7	639.6	712.5	774.6	773.5	783.0	788.0
North Carolina	121.6	193.2	285.2	338.0	366.7	386.7	394.7
South Carolina	87.0	154.7	233.3	283.1	296.2	303.0	311.6
Virginia	361.8	432.7	497.3	528.4	523.2	534.6	542.5
West Virginia	357.2	364.6	381.9	395.4	393.6	395.5	393.5
East South Central	**1,470.9**	**1,699.6**	**1,947.2**	**2,139.2**	**2,211.6**	**2,229.2**	**2,234.3**
Alabama	453.3	522.1	588.8	637.1	679.0	675.1	673.5
Kentucky	432.9	506.0	583.0	631.3	626.7	641.5	642.7
Mississippi	271.2	310.6	347.3	380.3	396.7	396.2	397.5
Tennessee	313.5	360.9	428.1	490.5	509.3	516.4	520.5
West South Central	**3,840.3**	**4,329.9**	**4,758.5**	**5,092.0**	**5,509.8**	**5,590.9**	**5,712.3**
Arkansas	299.1	362.1	419.3	461.4	489.9	485.0	514.1
Louisiana	701.2	804.7	871.3	935.9	1,002.3	1,008.5	1,017.1
Oklahoma	602.8	648.7	697.6	740.5	816.4	834.9	861.9
Texas	2,237.2	2,514.4	2,770.3	2,954.2	3,201.2	3,262.4	3,319.2
Mountain	**1,267.8**	**1,587.3**	**1,892.9**	**2,311.6**	**2,700.3**	**2,800.0**	**2,841.1**
Arizona	300.3	374.1	447.5	554.1	579.1	585.2	588.3
Colorado	388.4	485.7	586.5	688.8	850.1	889.3	907.9
Idaho	27.0	52.2	79.0	107.5	108.6	110.0	111.5
Montana	118.6	137.6	150.8	173.4	182.7	184.9	186.4
Nevada	24.6	47.8	72.4	112.2	168.2	175.9	181.0
New Mexico	176.6	203.8	231.8	278.9	327.6	341.4	344.2
Utah	166.5	211.9	243.8	297.4	361.0	386.5	393.1
Wyoming	65.8	74.2	81.1	99.2	122.9	126.9	129.0
Pacific	**4,762.9**	**5,688.9**	**6,461.6**	**7,153.5**	**8,010.8**	**8,153.3**	**8,263.9**
Alaska	b	6.1	17.4	29.1	42.1	45.5	50.3
California	4,506.6	5,311.1	5,919.4	6,495.1	7,286.3	7,410.7	7,510.8
Hawaii	39.8	36.2	36.1	34.8	33.2	32.7	32.7
Oregon	105.6	146.2	197.5	248.2	275.3	283.9	286.5
Washington	110.9	189.3	291.2	346.3	373.9	380.6	383.6

a. Excludes customers purchasing for resale.
b. Not available.
R—Revised.

TABLE 8-4
GAS UTILITY INDUSTRY CUSTOMERS, BY STATE AND CLASS OF SERVICE, AVERAGES, 1982

(Thousands)

Division and State	Total	Class of Service			
		Residential	Commercial	Industrial	Other
United States	**48,417.1**	**44,554.3**	**3,631.0**	**186.1**	**45.7**
New England	**1,775.3**	**1,631.9**	**130.7**	**9.1**	**3.7**
Connecticut	417.1	380.4	34.2	2.4	0.1
Maine	15.3	12.5	2.7	0.1	0.0
Massachusetts	1,098.6	1,016.1	74.3	5.0	3.1
New Hampshire	52.6	46.0	6.4	0.2	0.1
Rhode Island	175.9	162.8	11.7	1.4	0.0
Vermont	15.9	14.0	1.4	a	0.5
Middle Atlantic	**8,203.1**	**7,604.4**	**565.1**	**23.5**	**10.0**
New Jersey	1,869.5	1,687.7	175.2	6.6	a
New York	3,963.1	3,705.3	239.5	10.7	7.6
Pennsylvania	2,370.4	2,211.4	150.4	6.2	2.5
East North Central	**10,941.2**	**10,096.7**	**793.4**	**47.5**	**3.7**
Illinois	3,326.6	3,060.4	247.2	18.3	0.7
Indiana	1,282.3	1,174.0	103.4	4.6	0.4
Michigan	2,496.7	2,323.7	163.1	9.9	a
Ohio	2,766.8	2,562.7	195.0	6.6	2.5
Wisconsin	1,068.7	976.0	84.6	8.2	a
West North Central	**4,251.8**	**3,835.9**	**400.1**	**14.1**	**1.6**
Iowa	758.5	675.7	80.7	1.9	0.2
Kansas	759.2	683.1	71.0	4.9	0.3
Minnesota	855.6	777.6	73.1	4.7	0.2
Missouri	1,224.0	1,129.4	93.4	0.7	0.6
Nebraska	456.0	394.9	59.5	1.4	0.2
North Dakota	91.2	80.3	10.9	0.1	0.0
South Dakota	107.2	95.0	11.6	0.5	a
South Atlantic	**4,193.8**	**3,839.4**	**334.8**	**14.0**	**5.6**
Delaware	83.7	78.5	5.0	0.2	0.1
District of Columbia	147.0	131.8	15.2	0.0	0.0
Florida	450.2	413.0	35.8	0.5	0.9
Georgia	1,082.7	1,002.7	77.3	2.3	0.5
Maryland	788.0	732.2	50.8	4.9	0.1
North Carolina	394.7	348.5	43.9	2.1	0.2
South Carolina	311.6	277.2	29.8	1.2	3.3
Virginia	542.5	494.8	44.8	2.4	0.6
West Virginia	393.5	360.8	32.2	0.4	a
East South Central	**2,234.3**	**2,016.1**	**201.9**	**6.5**	**9.8**
Alabama	673.5	622.7	46.7	2.0	2.2
Kentucky	642.7	584.4	55.8	1.3	1.3
Mississippi	397.5	357.6	36.8	1.2	2.0
Tennessee	520.5	451.5	62.7	2.1	4.2
West South Central	**5,712.3**	**5,208.2**	**472.9**	**24.2**	**7.0**
Arkansas	514.1	454.7	57.7	1.6	0.1
Louisiana	1,017.1	945.2	68.4	2.3	1.2
Oklahoma	861.9	778.8	79.4	3.4	0.3
Texas	3,319.2	3,029.5	267.5	16.8	5.4
Mountain	**2,841.4**	**2,577.0**	**252.6**	**7.6**	**4.1**
Arizona	588.3	542.6	43.2	2.0	0.5
Colorado	907.9	810.2	96.0	1.5	0.1
Idaho	111.5	95.9	15.4	0.2	0.0
Montana	186.4	165.6	20.4	0.5	a
Nevada	181.0	174.9	5.9	0.1	a
New Mexico	344.2	308.0	31.2	2.6	2.4
Utah	393.1	365.6	27.0	0.5	a
Wyoming	129.0	114.1	13.6	0.2	1.0
Pacific	**8,263.9**	**7,744.6**	**479.4**	**39.6**	**0.3**
Alaska	50.3	44.4	5.2	0.7	0.0
California	7,510.8	7,084.2	392.7	33.7	0.3
Hawaii	32.7	28.7	2.3	1.7	0.0
Oregon	286.5	250.7	35.2	0.6	0.0
Washington	383.6	336.6	44.1	2.8	a

a. Less than .05 thousand.

TABLE 8-5
GAS UTILITY INDUSTRY HOUSEHEATING CUSTOMERS, BY STATE
YEARLY AVERAGES FOR 1970-1982

(Thousands)

	1970	1975	1980R	1981R	1982	
Division and State					Number	Saturation*
United States	**31,208.7**	**34,371.4**	**38,162.6**	**38,978.6**	**39,286.8**	**88.2**
New England	**778.8**	**857.1**	**1,008.8**	**1,069.0**	**1,090.4**	**66.8**
Connecticut	181.0	195.8	216.3	241.2	245.5	64.5
Maine	5.7	4.8	6.7	9.1	9.4	75.5
Massachusetts	443.3	531.5	635.6	662.3	674.2	66.4
New Hampshire	24.2	28.0	36.0	36.6	37.0	80.5
Rhode Island	116.0	86.3	103.0	108.4	112.7	69.2
Vermont	8.6	10.7	11.2	11.4	11.6	82.8
Middle Atlantic	**3,827.2**	**4,127.7**	**4,514.6**	**4,657.8**	**4,749.8**	**62.5**
New Jersey	713.7	793.4	942.6	987.3	1.030.1	61.0
New York	1.536.7	1,686.2	1.797.0	1.848.4	1.872.5	50.5
Pennsylvania	1,576.8	1.648.1	1.775.0	1.822.1	1.847.2	83.5
East North Central	**7,527.9**	**8,432.0**	**9,166.2**	**9,391.8**	**9,471.4**	**93.8**
Illinois	2,107.4	2,390.9	2.616.6	2.686.8	2.693.2	88.0
Indiana	813.0	947.6	1,049.9	1.109.5	1.127.1	96.0
Michigan	1.647.3	1.901.2	2.162.0	2.203.4	2,238.4	96.3
Ohio	2.379.2	2.482.0	2.507.3	2.532.3	2.534.6	98.9
Wisconsin	581.0	710.3	830.4	859.8	878.1	90.0
West North Central	**2,915.5**	**3,260.7**	**3,589.9**	**3,684.6**	**3,732.9**	**97.3**
Iowa	515.8	572.9	632.9	651.3	657.3	97.3
Kansas	563.4	595.4	649.6	673.2	683.1	100.0
Minnesota	513.1	598.3	690.9	720.4	740.0	95.2
Missouri	915.6	1.022.8	1.082.8	1.091.5	1.096.1	97.1
Nebraska	298.4	336.2	375.1	383.8	388.0	98.4
North Dakota	41.8	56.5	70.6	73.1	75.2	94.1
South Dakota	67.4	78.6	88.0	91.3	93.2	98.1
South Atlantic	**2,599.2**	**2,969.9**	**3,312.7**	**3,433.1**	**3,490.4**	**90.9**
Delaware	42.5	46.6	51.9	50.4	52.0	66.2
District of Columbia	83.2	86.1	92.0	94.0	95.2	72.3
Florida	247.9	261.7	368.3	378.8	404.0	97.8
Georgia	718.9	810.7	946.0	976.7	1.001.1	99.8
Maryland	443.3	528.8	550.2	563.4	572.3	78.2
North Carolina	209.6	274.4	288.2	325.3	340.9	97.8
South Carolina	179.7	226.9	257.1	269.7	244.9	88.3
Virginia	339.0	378.3	402.8	416.6	426.2	86.1
West Virginia	335.1	356.4	356.2	358.2	353.8	98.0
East South Central	**1,695.1**	**1,868.0**	**1,965.4**	**1,969.4**	**1,982.1**	**98.3**
Alabama	539.2	579.9	625.3	613.3	619.1	99.4
Kentucky	490.1	538.0	562.3	575.4	577.6	98.8
Mississippi	311.0	341.8	356.1	356.2	357.6	100.0
Tennessee	354.8	408.3	421.7	424.5	427.8	94.7
West South Central	**4,278.3**	**4,496.0**	**4,997.8**	**5,068.0**	**4,993.4**	**95.9**
Arkansas	371.0	405.8	433.9	428.7	454.7	100.0
Louisiana	737.3	859.3	931.3	936.7	936.1	99.0
Oklahoma	628.3	665.7	731.8	747.2	760.4	97.6
Texas	2.541.7	2.565.2	2.900.8	2.955.4	2.842.2	93.8
Mountain	**1,646.2**	**2,040.4**	**2,406.4**	**2,503.4**	**2,546.3**	**98.8**
Arizona	390.0	492.4	509.1	510.4	520.2	95.9
Colorado	508.7	610.9	759.1	793.4	810.2	100.0
Idaho	65.9	91.4	82.2	91.5	93.9	97.9
Montana	126.9	147.1	161.8	163.6	165.0	99.7
Nevada	65.9	100.7	155.3	164.3	173.2	99.0
New Mexico	203.4	239.4	291.6	305.1	308.0	100.0
Utah	217.6	272.6	338.3	362.3	361.7	98.9
Wyoming	67.8	85.9	109.0	112.8	114.1	99.9
Pacific	**5,940.5**	**6,319.6**	**7,200.8**	**7,201.5**	**7,230.1**	**93.4**
Alaska	14.4	24.0	36.2	39.3	43.8	98.6
California	5.506.9	5.794.5	6.618.4	6.606.3	6.619.2	93.4
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	166.3	206.7	224.9	228.2	230.7	92.0
Washington	252.9	294.4	321.3	327.7	336.4	99.9

*Percentages refer to proportion of residential gas customers using gas for heating.

Source: A.G.A. *Gas Househeating Survey.* Data represent average number of customers developed from number of year-end customers as shown in survey.

R—Revised.

TABLE 8-6

GAS UTILITY INDUSTRY HOUSEHEATING CUSTOMERS AND HEATING SATURATIONS[a] BY CENSUS DIVISION, 1960-1982 YEARLY AVERAGES[b]

(Thousands)

	1960		1965		1970		1975	
Census Division	Customers	Percent	Customers	Percent	Customers	Percent	Customers	Percent
United States	**20,739**	**68.2**	**26,297**	**76.1**	**31,209**	**81.9**	**34,372**	**84.1**
New England	386	25.3	583	36.8	779	48.6	857	54.8
Middle Atlantic	2,475	35.1	3,212	43.2	3,827	50.3	4,128	54.1
East North Central	4,369	64.3	6,091	77.6	7,528	85.6	8,432	89.4
West North Central	1,999	82.6	2,485	88.6	2,916	92.2	3,261	94.5
South Atlantic	1,533	66.7	2,073	74.9	2,599	80.9	2,970	84.2
East South Central	1,161	87.4	1,422	92.4	1,695	96.4	1,868	96.5
West South Central	3,457	99.7	3,900	99.5	4,278	99.0	4,496	97.1
Mountain	1,081	95.5	1,366	96.4	1,646	97.3	2,040	98.0
Pacific	4,278	97.3	5,165	97.3	5,941	98.3	6,320	94.6

	1979		1980R		1981R		1982	
Census Division	Customers	Percent	Customers	Percent	Customers	Percent	Customers	Percent
United States	**37,212**	**86.8**	**38,163**	**87.8**	**38,979**	**88.3**	**39,287**	**88.2**
New England	947	60.2	1,009	63.1	1,069	65.9	1,090	66.8
Middle Atlantic	4,299	57.3	4,515	60.0	4,658	61.6	4,750	62.5
East North Central	8,944	91.3	9,166	92.1	9,392	93.3	9,471	93.8
West North Central	3,546	96.3	3,590	96.3	3,685	96.7	3,733	97.3
South Atlantic	3,230	88.6	3,313	89.4	3,433	90.6	3,491	90.9
East South Central	1,947	98.3	1,965	98.5	1,969	98.0	1,982	98.3
West South Central	4,894	99.0	4,998	99.5	5,068	99.4	4,994	95.9
Mountain	2,345	98.8	2,406	98.2	2,503	98.5	2,546	98.8
Pacific	7,060	95.6	7,201	95.8	7,202	94.1	7,230	93.4

a. Percentages refer to proportion of total residential gas customers, within specified areas, using gas for heating.
b. Excludes data for Alaska prior to 1961.
R—Revised.
Source: A.G.A. *Gas Househeating Survey*. Data represent average number of customers developed from number of year-end customers as shown in survey.

SECTION 9
PRICES

	1982	% Change 82/81
Gas Utility Industry		
($/MMBtu)		
Total	$ 4.44	+21.6
Residential	4.97	+19.4
Commercial	4.72	+20.8
Industrial	3.97	+20.7
Other	4.30	+24.4
Wellhead ($/Mcf)	2.43	+21.8
City Gate	3.60	+24.7
Electric	18.90	+11.2
Number 2 Fuel Oil	8.70	− 2.8

Prices in this section, unless cited as a source other than A.G.A., were developed using the following methodology. Total revenues for a specific segment and time period are divided by the corresponding total sales for that specific segment and time period. For example, the residential price (average 1982) for the state of New York was obtained by dividing total 1982 residential revenues in New York by the total 1982 residential sales in New York. Likewise, the residential price (average 1982) for the total United States was obtained by dividing total 1982 residential revenues in the United States by the total 1982 residential sales in the United States.

TABLE 9-1
AVERAGE WELLHEAD PRICES OF NATURAL GAS, BY STATE, 1960–1981*

(¢/MCF)

Division and State	1960	1965	1970	1975	1978	1979	1980[R]	1981
United States	**14.0¢**	**15.6¢**	**17.1¢**	**44.5¢**	**90.5¢**	**117.8¢**	**158.8¢**	**198.2¢**
New England	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Middle Atlantic	**31.8**	**26.9**	**28.0**	**68.0**	**90.1**	**131.8**	**210.2**	**236.9**
New Jersey	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New York	30.9	30.8	30.3	74.0	119.0	126.6	194.9	266.7
Pennsylvania	31.8	26.7	27.9	67.5	86.0	132.6	212.7	233.0
East North Central	**21.0**	**23.1**	**26.4**	**66.6**	**135.9**	**176.8**	**217.6**	**252.9**
Illinois	12.5	11.7	15.7	70.0	129.0	186.1	190.0	247.1
Indiana	18.8	23.6	23.7	39.0	71.0	105.4	135.0	208.4
Michigan	21.4	25.1	26.7	63.4	119.7	174.0	235.5	286.3
Ohio	23.5	23.6	27.1	70.6	157.0	180.5	197.7	217.0
Wisconsin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
West North Central	**11.8**	**13.4**	**14.1**	**17.5**	**56.7**	**77.0**	**79.5**	**98.8**
Iowa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kansas	11.7	13.3	14.0	17.2	57.0	75.6	77.2	92.0
Minnesota	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missouri	25.0	24.5	24.5	34.0	0.0	0.0	0.0	0.0
Nebraska	17.5	14.6	17.1	54.1	68.0	85.0	82.9	145.1
North Dakota	11.4	16.0	16.4	23.0	46.2	128.0	118.8	194.2
South Dakota	0.0	0.0	0.0	0.0	0.0	210.7	NA	275.5
South Atlantic	**26.2**	**23.4**	**25.5**	**50.4**	**86.6**	**120.1**	**274.2**	**291.5**
Delaware	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Florida	16.2	12.9	0.0	97.3	139.0	157.2	173.0	271.0
Georgia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryland	26.6	25.2	24.9	27.0	61.4	103.6	45.6	48.2
North Carolina	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Carolina	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	27.1	29.9	30.8	51.5	131.3	168.1	285.0	214.5
West Virginia	26.2	23.5	25.4	36.9	65.8	105.0	300.0	300.0
East South Central	**20.5**	**19.3**	**20.7**	**59.3**	**111.1**	**159.6**	**223.2**	**317.1**
Alabama	7.3	12.7	13.9	87.0	150.0	203.9	318.6	477.0
Kentucky	24.4	23.6	24.6	54.0	58.0	94.7	89.3[a]	100.8
Mississippi	18.8	17.3	18.4	49.6	114.6	160.0	231.7	321.0
Tennessee	17.5	19.0	19.9	43.0	164.0	170.0	176.0	254.9
West South Central	**13.1**	**14.6**	**16.7**	**45.6**	**90.8**	**116.7**	**156.9**	**195.6**
Arkansas	11.9	15.6	16.3	34.7	75.0	95.9	69.6	181.0
Louisiana	17.1	18.2	19.3	42.3	83.6	111.5	160.7[a]	207.0
Oklahoma	11.9	13.8	15.6	32.0	90.2	112.4	150.7	188.5
Texas	11.3	12.9	14.4	51.9	99.5	123.4	156.5[b]	186.8
Mountain	**11.2**	**12.1**	**14.3**	**38.2**	**92.0**	**129.4**	**172.6**	**219.5**
Arizona	0.0	12.1	17.1	28.0	37.0	41.3	NA	NA
Colorado	11.9	12.9	14.7	48.0	84.0	141.0	147.0	197.0
Idaho	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Montana	7.1	8.2	10.3	43.3	84.7	121.1	145.4	191.0
Nevada	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Mexico	10.7	11.8	14.3	40.5	98.8	136.6	175.8	212.9
Utah	18.0	12.5	15.1	48.0	64.3	71.6	111.7	110.0
Wyoming	12.0	13.5	14.7	33.7	79.3	113.0	192.0	277.0
Pacific	**26.7**	**30.8**	**31.0**	**56.7**	**102.7**	**115.0**	**210.7**	**181.1**
Alaska	12.2	24.8	24.6	30.2	52.1	51.8	73.2	62.0
California	26.7	30.9	32.1	70.0	135.7	170.5	217.0	257.0
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	0.0	0.0	0.0	0.0	0.0	213.0	240.0	260.0
Washington	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

a. Value data is for the period beginning June 1, 1980 and ending May 31, 1981.
b. Weighted average value obtained from separate onshore and OCS average value calculations.
NA—Not available.
*Reflects price at first point of transfer, representing sales made by producers. The 1982 U.S. average wellhead price of natural gas is 243.0¢.
R—Revised.
Source: Energy Information Administration, U.S. Department of Energy, *Natural Gas Annual*, 1981.

PRICES

TABLE 9-2
GAS UTILITY INDUSTRY AVERAGE PRICES BY CLASS OF SERVICE, 1960-1982*

($/MMBtu)

Year	Total	Residential	Commercial	Industrial	Other
1960	$0.60	$1.00	$0.79	$0.33	$0.33
1961	0.62	1.02	0.80	0.35	0.34
1962	0.63	1.02	0.80	0.35	0.34
1963	0.62	1.02	0.80	0.35	0.35
1964	0.62	1.01	0.78	0.35	0.36
1965	0.62	1.01	0.78	0.35	0.36
1966	0.61	1.00	0.78	0.35	0.36
1967	0.61	1.00	0.78	0.35	0.36
1968	0.61	1.00	0.77	0.35	0.36
1969	0.62	1.01	0.78	0.36	0.39
1970	0.64	1.06	0.81	0.38	0.41
1971	0.68	1.12	0.85	0.41	0.38
1972	0.73	1.19	0.91	0.45	0.41
1973	0.79	1.25	0.95	0.50	0.44
1974	0.95	1.42	1.11	0.66	0.60
1975	1.29	1.69	1.38	0.99	0.94
1976	1.60	1.98	1.68	1.31	1.36
1977	1.97	2.33	2.07	1.69	1.74
1978	2.18	2.53	2.28	1.90	1.79
1979	2.52	2.92	2.66	2.23	1.94
1980[R]	3.13	3.61	3.34	2.79	2.67
1981[R]	3.65	4.16	3.91	3.29	3.46
1982	4.44	4.97	4.72	3.97	4.30

*Excludes data for Alaska prior to 1961.
R—Revised.

TABLE 9-3
GAS UTILITY INDUSTRY AVERAGE PRICES, BY STATE, 1960-1982[a]

($/MMBtu)

Division and State	1960	1965	1970	1975	1980R	1981R	1982
United States	**$0.60**	**$0.62**	**$0.64**	**$1.29**	**$3.13**	**$3.65**	**$4.44**
New England	**1.77**	**1.60**	**1.60**	**2.87**	**4.96**	**5.77**	**6.78**
Connecticut	1.66	1.51	1.60	2.93	4.99	5.88	7.21
Maine	2.78	2.96	2.23	3.04	5.15	6.18	7.12
Massachusetts	1.82	1.63	1.64	2.91	4.96	5.77	6.62
New Hampshire	1.71	1.71	1.54	2.21	4.25	4.99	6.06
Rhode Island	1.58	1.46	1.36	2.82	5.00	5.62	7.07
Vermont	3.49	2.93	2.22	2.06	5.66	6.32	6.46
Middle Atlantic	**1.07**	**1.04**	**1.06**	**1.97**	**3.98**	**4.55**	**5.47**
New Jersey	1.53	1.38	1.26	2.31	4.36	5.30	6.14
New York	1.29	1.20	1.21	2.14	4.43	4.78	5.73
Pennsylvania	0.81	0.81	0.87	1.68	3.45	4.02	4.88
East North Central	**0.74**	**0.73**	**0.74**	**1.34**	**3.17**	**3.66**	**4.34**
Illinois	0.77	0.74	0.73	1.35	3.26	3.67	4.19
Indiana	0.66	0.63	0.71	1.16	2.82	3.26	3.86
Michigan	0.81	0.80	0.78	1.43	3.06	3.70	4.35
Ohio	0.68	0.70	0.73	1.35	3.24	3.63	4.56
Wisconsin	1.02	0.82	0.80	1.31	3.42	4.19	4.95
West North Central	**0.52**	**0.53**	**0.56**	**1.00**	**2.68**	**3.30**	**4.23**
Iowa	0.61	0.62	0.62	1.04	2.81	3.42	4.18
Kansas	0.33	0.36	0.39	0.69	2.24	2.83	3.65
Minnesota	0.71	0.68	0.67	1.19	2.81	3.59	4.58
Missouri	0.56	0.56	0.54	1.18	3.04	3.50	4.69
Nebraska	0.52	0.51	0.51	0.90	2.34	3.07	3.78
North Dakota	0.67	0.68	0.82	1.26	3.57	3.97	4.36
South Dakota	0.58	0.65	0.71	1.05	2.81	3.53	4.32
South Atlantic	**0.73**	**0.72**	**0.72**	**1.39**	**3.28**	**3.91**	**4.63**
Delaware	1.14	0.96	0.93	1.73	3.46	4.79	5.32
District of Columbia	1.45	1.36	1.28	2.21	4.38	5.29	6.36
Florida	0.52	0.51	0.55	1.15	2.63	3.21	3.76
Georgia	0.55	0.61	0.57	1.12	3.17	3.59	4.32
Maryland	1.32	1.17	1.13	1.97	3.87	4.53	5.58
North Carolina	0.74	0.74	0.70	1.58	3.46	4.51	4.74
South Carolina	0.57	0.58	0.62	1.10	3.16	3.98	4.54
Virginia	1.05	0.98	0.95	1.78	3.58	4.16	5.10
West Virginia	0.60	0.59	0.64	1.24	3.27	3.68	4.73
East South Central	**0.52**	**0.50**	**0.51**	**1.03**	**2.85**	**3.36**	**4.12**
Alabama	0.52	0.51	0.52	1.04	3.11	3.64	4.31
Kentucky	0.63	0.64	0.67	1.11	2.90	3.36	4.35
Mississippi	0.41	0.39	0.38	0.95	2.71	3.24	3.86
Tennessee	0.54	0.50	0.53	1.00	2.69	3.17	3.97
West South Central	**0.29**	**0.32**	**0.35**	**0.99**	**2.53**	**3.00**	**3.70**
Arkansas	0.33	0.36	0.37	0.80	1.97	2.12	3.35
Louisiana	0.26	0.28	0.30	0.85	2.36	2.95	3.73
Oklahoma	0.35	0.40	0.46	0.79	2.05	2.38	2.85
Texas	0.28	0.31	0.35	1.10	2.72	3.21	3.92
Mountain	**0.43**	**0.46**	**0.49**	**0.99**	**2.84**	**3.42**	**4.22**
Arizona	0.47	0.52	0.57	1.19	2.82	3.21	4.43
Colorado	0.43	0.45	0.48	0.90	2.95	3.83	4.57
Idaho	0.53	0.57	0.67	1.48	4.03	4.33	5.30
Montana	0.43	0.47	0.54	1.03	3.03	3.90	4.66
Nevada	0.62	0.59	0.58	1.30	3.17	3.67	4.80
New Mexico	0.34	0.41	0.42	0.88	2.66	3.05	3.92
Utah	0.44	0.43	0.46	0.85	2.34	2.75	3.06
Wyoming	0.36	0.38	0.34	0.70	2.45	3.15	3.74
Pacific	**0.59**	**0.57**	**0.58**	**1.31**	**3.65**	**3.97**	**4.81**
Alaska	b	0.88	0.70	0.81	1.20	1.47	4.32
California	0.59	0.55	0.56	1.26	3.57	3.89	4.76
Hawaii	3.13	3.03	2.76	6.78	13.01	15.46	14.97
Oregon	0.78	0.71	0.74	1.80	4.64	4.92	5.91
Washington	0.59	0.60	0.65	1.55	4.33	4.75	5.76

a. Excludes sales for resale and revenues from sales for resale.

b. Not available.

R—Revised.

TABLE 9-4
GAS UTILITY INDUSTRY RESALE PRICES BY STATE, 1970-1982[a]

($/MMBtu)

Division and State	1970	1975	1978	1979	1980R	1981R	1982
United States	**$0.35**	**$0.80**	**$1.47**	**$1.81**	**$2.41**	**$2.89**	**$3.60**
New England	**0.62**	**1.41**	**1.92**	**2.25**	**2.84**	**3.41**	**4.33**
Connecticut	0.63	1.51	2.03	2.31	2.91	3.49	4.37
Maine	b	b	b	b	b	b	b
Massachusetts	0.61	1.35	1.87	2.23	2.81	3.40	4.31
New Hampshire	0.62	0.99	1.78	2.14	2.59	3.26	4.18
Rhode Island	0.59	1.59	1.94	2.26	2.94	3.37	4.41
Vermont	b	0.67	b	b	b	b	b
Middle Atlantic	**0.43**	**0.93**	**1.51**	**1.86**	**2.49**	**2.96**	**3.71**
New Jersey	0.44	0.99	1.47	1.78	2.45	2.95	3.66
New York	0.46	0.93	1.55	1.98	2.59	3.19	3.77
Pennsylvania	0.41	0.90	1.50	1.82	2.45	2.82	3.70
East North Central	**0.37**	**0.79**	**1.44**	**1.80**	**2.41**	**2.87**	**3.42**
Illinois	0.31	0.68	1.22	1.64	2.12	2.57	3.00
Indiana	0.37	0.72	1.27	1.72	2.14	2.63	3.24
Michigan	0.40	0.87	1.67	2.03	2.93	3.36	3.93
Ohio	0.39	0.84	1.48	1.78	2.39	2.79	3.61
Wisconsin	0.41	0.95	1.82	2.18	3.07	3.69	4.14
West North Central	**0.34**	**0.70**	**1.36**	**1.69**	**2.11**	**2.72**	**3.51**
Iowa	0.39	0.78	1.56	1.93	2.48	2.80	3.38
Kansas	0.26	0.53	1.04	1.29	1.78	2.42	3.29
Minnesota	0.37	0.75	1.47	1.91	2.32	2.96	3.73
Missouri	0.32	0.69	1.31	1.58	1.86	2.63	3.54
Nebraska	0.34	0.69	1.34	1.62	2.02	2.70	3.38
North Dakota	0.42	1.40	2.33	2.78	4.55	5.05	4.66
South Dakota	0.37	0.72	1.44	1.74	2.11	2.83	3.68
South Atlantic	**0.39**	**0.80**	**1.51**	**1.85**	**2.44**	**3.02**	**3.74**
Delaware	0.62	0.98	1.61	1.83	2.41	3.04	3.77
District of Columbia	b	b	b	b	b	b	b
Florida	0.38	0.66	1.25	1.62	2.31	2.60	3.31
Georgia	0.37	0.69	1.37	1.88	2.30	2.97	3.66
Maryland	0.45	1.05	1.74	1.89	2.61	3.00	4.04
North Carolina	0.24	0.81	1.54	1.89	2.66	3.46	3.68
South Carolina	0.45	0.68	1.35	1.81	2.32	3.11	3.83
Virginia	0.42	0.98	1.79	1.91	2.60	3.19	3.77
West Virginia	0.36	0.76	1.47	1.83	2.35	2.85	3.75
East South Central	**0.32**	**0.64**	**1.29**	**1.58**	**2.15**	**2.71**	**3.50**
Alabama	0.33	0.64	1.30	1.82	2.25	2.90	3.61
Kentucky	0.37	0.71	1.30	1.66	2.23	2.70	3.47
Mississippi	0.27	0.62	1.29	1.34	2.19	2.78	3.64
Tennessee	0.29	0.61	1.27	1.59	2.04	2.60	3.38
West South Central	**0.21**	**0.63**	**1.37**	**1.66**	**2.15**	**2.74**	**3.46**
Arkansas	0.30	0.58	1.05	1.29	2.17	2.17	2.89
Louisiana	0.22	0.62	1.30	1.70	2.09	2.63	3.45
Oklahoma	0.20	0.62	1.32	1.52	2.05	2.72	3.28
Texas	0.20	0.64	1.49	1.67	2.21	2.83	3.51
Mountain	**0.32**	**0.71**	**1.38**	**1.74**	**2.37**	**2.63**	**3.53**
Arizona	0.33	0.70	1.32	1.74	2.26	2.42	3.43
Colorado	0.26	0.58	1.37	1.46	2.51	3.28	3.82
Idaho	0.34	1.14	2.02	2.33	3.43	3.65	4.21
Montana	0.46	0.95	1.74	1.99	3.42	4.27	4.42
Nevada	0.51	1.28	2.17	2.81	3.64	4.01	4.65
New Mexico	0.20	0.48	1.27	1.59	1.91	2.31	2.71
Utah	0.20	0.42	0.81	1.20	1.83	3.38	4.44
Wyoming	0.23	0.97	1.73	2.17	3.03	3.55	4.01
Pacific	**0.34**	**1.10**	**1.95**	**2.39**	**3.39**	**3.73**	**4.34**
Alaska	b	b	b	b	0.83	b	b
California	0.37	0.85	1.54	2.08	2.75	3.05	3.85
Hawaii	b	b	b	b	b	b	b
Oregon	0.30	1.27	2.24	2.65	4.29	4.69	5.06
Washington	0.32	1.11	1.98	2.34	3.40	3.67	4.24

a. Resale prices approximate city-gate prices.
b. No sales reported.
R—Revised.

TABLE 9-5
AVERAGE GAS PRICES OF WELLHEAD, CITY GATE, AND END-USER LEVEL
1960–1982

Year	Wellhead ($/Mcf*)	City Gate ($/MMBtu*)	Cost to the Ultimate Customer ($/MMBtu*)
1960	$0.140	$0.342	$0.605
1961	0.151	0.357	0.618
1962	0.155	0.360	0.630
1963	0.158	0.351	0.625
1964	0.154	0.342	0.615
1965	0.156	0.339	0.618
1966	0.157	0.333	0.612
1967	0.160	0.330	0.612
1968	0.164	0.328	0.607
1969	0.167	0.334	0.616
1970	0.171	0.354	0.641
1971	0.182	0.389	0.681
1972	0.186	0.429	0.730
1973	0.216	0.463	0.788
1974	0.304	0.573	0.953
1975	0.445	0.798	1.285
1976	0.580	0.984	1.599
1977	0.790	1.308	1.974
1978	0.905	1.466	2.184
1979	1.178	1.812	2.522
1980R	1.588	2.414	3.134
1981R	1.982	2.885	3.650
1982	2.430	3.599	4.439

*Mcf and MMBtu prices are roughly comparable. On a MMBtu basis, the wellhead price would be slightly less.
R—Revised.
Source: For wellhead price, *Monthly Energy Review*.

TABLE 9-6
GAS UTILITY INDUSTRY AVERAGE PRICES, BY STATE AND CLASS OF SERVICE, 1982

($/MMBtu)

Division and State	Total	Class of Service Residential	Commercial	Industrial[a]	Other
United States	**$4.44**	**$4.97**	**$4.72**	**$3.97**	**$4.30**
New England	**6.78**	**7.66**	**6.47**	**5.43**	**5.02**
Connecticut	7.21	8.35	6.68	5.99	6.57
Maine	7.12	8.31	7.05	6.39	b
Massachusetts	6.62	7.47	6.32	5.10	5.18
New Hampshire	6.06	6.52	6.12	4.67	5.08
Rhode Island	7.07	7.69	7.36	5.68	b
Vermont	6.46	7.48	7.08	5.50	6.15
Middle Atlantic	**5.47**	**6.01**	**5.46**	**4.66**	**5.10**
New Jersey	6.14	6.84	6.24	5.00	6.06
New York	5.73	6.26	5.46	4.81	5.17
Pennsylvania	4.88	5.24	4.95	4.42	5.20
East North Central	**4.34**	**4.57**	**4.30**	**4.06**	**4.39**
Illinois	4.19	4.38	4.06	4.01	3.85
Indiana	3.86	4.17	3.96	3.61	3.22
Michigan	4.35	4.44	4.39	4.14	2.08
Ohio	4.56	4.80	4.53	4.20	4.61
Wisconsin	4.95	5.57	4.91	4.41	4.33
West North Central	**4.23**	**4.66**	**4.24**	**3.74**	**3.06**
Iowa	4.18	4.64	4.28	3.69	4.50
Kansas	3.65	3.99	3.43	3.55	2.58
Minnesota	4.58	4.98	4.75	4.04	3.63
Missouri	4.69	5.00	4.63	4.02	3.73
Nebraska	3.78	4.18	3.66	3.41	3.23
North Dakota	4.36	4.61	4.18	4.02	5.08
South Dakota	4.32	4.67	4.12	3.64	3.68
South Atlantic	**4.63**	**5.53**	**4.95**	**4.04**	**4.22**
Delaware	5.32	5.85	5.53	5.15	3.17
District of Columbia	6.36	6.56	6.19	b	b
Florida	3.76	6.51	4.63	3.41	3.88
Georgia	4.32	4.97	4.36	3.87	4.33
Maryland	5.58	6.08	5.56	4.97	3.71
North Carolina	4.74	5.42	4.96	4.41	4.87
South Carolina	4.54	5.42	4.55	4.27	4.72
Virginia	5.10	5.84	5.31	4.28	5.03
West Virginia	4.73	4.97	4.77	4.49	4.67
East South Central	**4.12**	**4.69**	**4.39**	**3.70**	**3.60**
Alabama	4.31	5.24	4.41	3.88	5.01
Kentucky	4.35	4.53	4.43	4.10	4.03
Mississippi	3.86	4.72	4.47	3.60	3.72
Tennessee	3.97	4.27	4.33	3.72	3.33
West South Central	**3.70**	**4.57**	**4.23**	**3.50**	**3.09**
Arkansas	3.35	3.73	3.56	3.17	3.06
Louisiana	3.73	4.87	4.66	3.44	3.58
Oklahoma	2.85	3.39	3.30	2.66	2.17
Texas	3.92	5.08	4.58	3.70	4.12
Mountain	**4.22**	**4.64**	**4.52**	**3.66**	**4.17**
Arizona	4.43	5.49	4.62	3.79	4.10
Colorado	4.57	4.93	4.54	4.03	4.17
Idaho	5.30	6.45	5.52	4.72	b
Montana	4.66	4.22	4.60	5.49	4.92
Nevada	4.80	5.30	5.56	4.15	4.38
New Mexico	3.92	4.64	4.27	3.36	3.87
Utah	3.06	3.42	3.47	2.47	6.61
Wyoming	3.74	4.40	4.31	3.14	5.10
Pacific	**4.81**	**4.41**	**5.23**	**4.96**	**5.66**
Alaska	1.32	1.83	1.57	1.04	b
California	4.76	4.26	5.12	4.98	5.42
Hawaii	14.97	17.28	14.01	14.56	b
Oregon	5.91	6.64	6.11	5.35	b
Washington	5.76	6.46	5.87	5.27	5.75

a. Includes Electric Generation.
b. No sales reported.

TABLE 9-7
AVERAGE RESIDENTIAL GAS PRICES, BY STATE, 1960-1982

($/MMBtu)

Division and State	1960	1965	1970	1975	1980^{R}	1981^{R}	1982
United States	**$1.00**	**$1.01**	**$1.06**	**$1.69**	**$3.61**	**$4.16**	**$4.97**
New England	**2.08**	**1.89**	**1.88**	**3.22**	**5.48**	**6.33**	**7.66**
Connecticut	2.02	1.83	1.93	3.27	5.73	6.69	8.35
Maine	3.01	3.33	2.89	4.25	6.35	7.46	8.31
Massachusetts	2.11	1.91	1.87	3.20	5.41	6.24	7.47
New Hampshire	1.99	1.85	1.77	2.46	4.55	5.29	6.52
Rhode Island	1.92	1.80	1.76	3.16	5.48	6.24	7.69
Vermont	3.40	3.44	1.78	2.80	6.43	7.07	7.48
Middle Atlantic	**1.32**	**1.31**	**1.34**	**2.26**	**4.45**	**5.02**	**6.01**
New Jersey	1.79	1.69	1.62	2.59	4.89	5.82	6.84
New York	1.42	1.35	1.38	2.43	4.86	5.23	6.26
Pennsylvania	1.08	1.10	1.17	1.90	3.76	4.37	5.24
East North Central	**0.93**	**0.95**	**0.99**	**1.56**	**3.37**	**3.88**	**4.57**
Illinois	1.11	1.02	1.02	1.58	3.46	3.85	4.38
Indiana	0.98	0.96	1.05	1.45	3.12	3.59	4.17
Michigan	0.94	0.97	1.00	1.60	3.15	3.81	4.44
Ohio	0.76	0.83	0.89	1.51	3.45	3.87	4.80
Wisconsin	1.27	1.14	1.21	1.71	3.80	4.71	5.57
West North Central	**0.83**	**0.85**	**0.92**	**1.37**	**3.08**	**3.72**	**4.66**
Iowa	0.93	0.92	0.96	1.41	3.20	3.87	4.64
Kansas	0.57	0.60	0.69	0.97	2.37	2.96	3.99
Minnesota	1.11	1.05	1.08	1.59	3.24	4.11	4.98
Missouri	0.79	0.84	0.93	1.45	3.37	3.79	5.00
Nebraska	0.85	0.83	0.86	1.26	2.71	3.51	4.18
North Dakota	0.84	0.86	1.05	1.50	3.83	4.27	4.61
South Dakota	0.93	0.95	1.04	1.40	3.11	3.88	4.67
South Atlantic	**1.22**	**1.23**	**1.23**	**2.02**	**4.15**	**4.60**	**5.53**
Delaware	1.72	1.59	1.50	2.34	4.15	5.35	5.85
District of Columbia	1.53	1.47	1.44	2.40	4.56	5.49	6.56
Florida	2.76	2.51	1.81	2.78	4.85	5.28	6.51
Georgia	0.97	1.03	0.98	1.75	4.06	4.02	4.97
Maryland	1.48	1.39	1.43	2.31	4.40	5.02	6.08
North Carolina	1.41	1.38	1.29	2.02	4.00	5.03	5.42
South Carolina	1.43	1.39	1.34	2.08	4.13	4.85	5.42
Virginia	1.55	1.45	1.42	2.29	4.24	4.79	5.84
West Virginia	0.79	0.80	0.87	1.47	3.62	3.92	4.97
East South Central	**0.90**	**0.91**	**0.92**	**1.43**	**3.37**	**3.80**	**4.69**
Alabama	1.06	1.11	1.10	1.72	4.10	4.41	5.24
Kentucky	0.78	0.80	0.84	1.30	3.08	3.52	4.53
Mississippi	0.88	0.87	0.88	1.41	3.39	3.88	4.72
Tennessee	0.94	0.90	0.89	1.33	2.94	3.44	4.27
West South Central	**0.70**	**0.77**	**0.85**	**1.35**	**3.00**	**3.68**	**4.57**
Arkansas	0.66	0.75	0.78	1.12	2.36	2.82	3.73
Louisiana	0.64	0.72	0.75	1.32	3.07	3.73	4.87
Oklahoma	0.69	0.75	0.80	1.15	2.38	2.81	3.39
Texas	0.73	0.80	0.92	1.47	3.30	4.10	5.08
Mountain	**0.72**	**0.74**	**0.83**	**1.34**	**3.23**	**3.92**	**4.64**
Arizona	0.97	1.04	1.14	1.83	3.74	4.34	5.49
Colorado	0.67	0.67	0.71	1.16	3.21	4.17	4.93
Idaho	1.26	1.22	1.34	2.25	4.94	5.52	6.45
Montana	0.60	0.63	0.84	1.18	2.88	3.55	4.22
Nevada	1.47	1.30	1.31	1.81	3.97	4.67	5.30
New Mexico	0.74	0.71	0.84	1.37	3.21	3.66	4.64
Utah	0.63	0.64	0.70	1.12	2.68	3.14	3.42
Wyoming	0.59	0.61	0.65	0.99	2.94	3.73	4.40
Pacific	**0.91**	**0.91**	**0.97**	**1.58**	**3.51**	**3.75**	**4.41**
Alaska	*	1.48	1.42	1.48	1.73	1.91	1.83
California	0.88	0.87	0.93	1.52	3.38	3.59	4.26
Hawaii	3.65	3.74	3.56	7.97	14.58	17.19	17.28
Oregon	1.56	1.52	1.44	2.41	5.36	5.81	6.64
Washington	1.41	1.32	1.29	2.12	4.91	5.56	6.46

* Not available.
R—Revised.

TABLE 9-8
AVERAGE ANNUAL RESIDENTIAL GAS BILLS, BY STATE, 1960-1982

($/Customer)

Division and State	1960	1965	1970	1975	1980^R	1981^R	1982
United States	**$104**	**$117**	**$137**	**$206**	**$401**	**$434**	**$532**
New England	**103**	**128**	**162**	**274**	**493**	**581**	**703**
Connecticut	109	125	169	285	505	606	737
Maine	88	107	110	165	274	333	404
Massachusetts	106	132	163	276	494	576	690
New Hampshire	102	137	165	234	444	523	681
Rhode Island	91	117	146	266	474	572	724
Vermont	68	80	116	261	661	753	783
Middle Atlantic	**103**	**119**	**144**	**231**	**458**	**526**	**621**
New Jersey	102	124	150	229	439	524	615
New York	90	105	126	217	441	494	597
Pennsylvania	127	142	172	257	501	581	666
East North Central	**128**	**151**	**174**	**257**	**535**	**578**	**687**
Illinois	122	143	169	266	562	597	706
Indiana	101	128	168	220	449	491	585
Michigan	138	168	189	268	545	602	691
Ohio	140	157	172	259	547	583	709
Wisconsin	117	148	175	238	497	584	682
West North Central	**126**	**135**	**154**	**209**	**405**	**431**	**595**
Iowa	138	148	161	215	408	445	589
Kansas	90	93	114	145	301	332	485
Minnesota	161	176	190	255	450	511	684
Missouri	118	127	155	215	449	442	621
Nebraska	136	134	145	195	350	390	544
North Dakota	100	142	179	245	489	490	628
South Dakota	135	150	159	203	365	408	574
South Atlantic	**113**	**118**	**136**	**194**	**386**	**430**	**488**
Delaware	110	136	164	219	388	485	515
District of Columbia	122	129	147	230	472	568	647
Florida	54	68	87	107	194	205	222
Georgia	107	106	122	181	393	387	461
Maryland	125	133	158	225	425	492	571
North Carolina	110	124	144	188	388	485	502
South Carolina	98	105	122	151	319	368	365
Virginia	129	137	157	230	423	487	560
West Virginia	129	128	140	219	473	527	623
East South Central	**106**	**101**	**116**	**153**	**345**	**369**	**440**
Alabama	103	101	118	157	356	376	425
Kentucky	120	116	132	177	401	428	531
Mississippi	86	77	92	122	291	313	363
Tennessee	111	103	113	140	299	326	404
West South Central	**68**	**71**	**89**	**130**	**253**	**280**	**368**
Arkansas	81	85	103	128	226	244	377
Louisiana	56	59	72	108	236	277	349
Oklahoma	79	87	102	138	246	258	350
Texas	67	69	89	135	265	292	377
Mountain	**99**	**104**	**117**	**175**	**336**	**350**	**463**
Arizona	73	80	89	141	221	226	318
Colorado	100	103	111	171	385	394	515
Idaho	127	143	154	249	393	395	495
Montana	106	126	148	203	363	395	541
Nevada	130	134	148	204	347	381	521
New Mexico	99	96	109	173	318	319	431
Utah	127	128	148	201	373	394	487
Wyoming	102	106	117	160	378	412	566
Pacific	**84**	**94**	**103**	**174**	**286**	**277**	**354**
Alaska	*	341	282	328	375	390	421
California	82	92	97	166	272	262	337
Hawaii	92	102	120	232	364	397	388
Oregon	123	138	163	258	428	419	517
Washington	132	152	165	259	469	466	586

*Not available.
R—Revised.

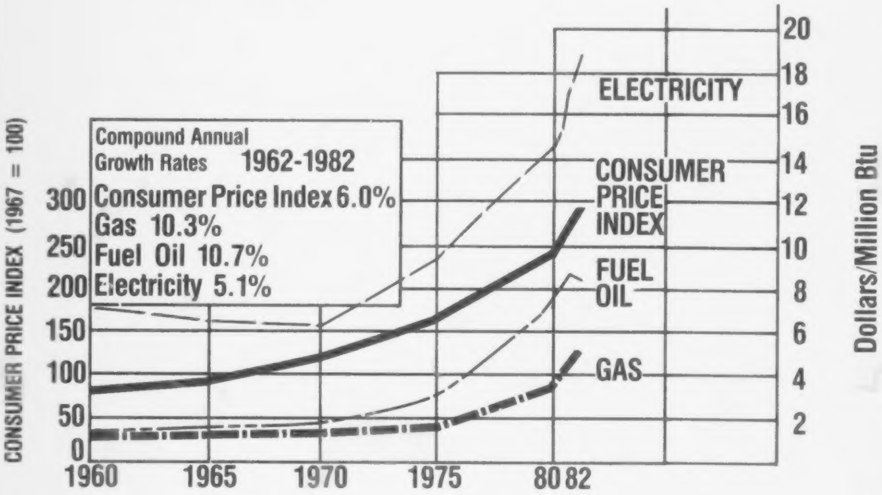
TABLE 9-9
AVERAGE RESIDENTIAL CONSUMPTION AND COSTS
1960–1982*

Year	Gas			Electric Price ($/MMBtu)	Number 2 Fuel Oil Price ($/MMBtu)
	Consumption (MMBtu/ Customer)	Annual Bill ($/Customer)	Price ($/MMBtu)		
1960	104.8	$104.46	$1.00	$ 7.24	$1.08
1961	106.7	108.51	1.02	7.18	1.12
1962	110.9	112.98	1.02	7.06	1.13
1963	112.1	113.96	1.02	6.95	1.15
1964	115.3	116.09	1.01	6.77	1.12
1965	116.5	117.34	1.01	6.59	1.15
1966	118.8	119.38	1.00	6.45	1.18
1967	121.5	122.03	1.00	6.36	1.21
1968	124.1	124.48	1.00	6.21	1.25
1969	128.4	130.08	1.01	6.13	1.28
1970	129.2	136.69	1.06	6.15	1.33
1971	129.9	145.28	1.12	6.42	1.41
1972	130.4	154.56	1.19	6.71	1.42
1973	124.5	155.73	1.25	6.98	1.64
1974	119.6	169.82	1.42	8.29	2.60
1975	121.9	206.24	1.69	9.40	2.81
1976	121.3	240.48	1.98	10.11	3.01
1977	118.7	276.87	2.33	11.08	3.42
1978	121.0	307.40	2.53	11.81	3.66
1979	118.6	346.39	2.92	12.69	5.24
1980^R	111.0	400.84	3.61	14.45	7.21
1981^R	104.4	434.43	4.16	17.00	8.95
1982	107.1	531.95	4.97	18.90	8.70

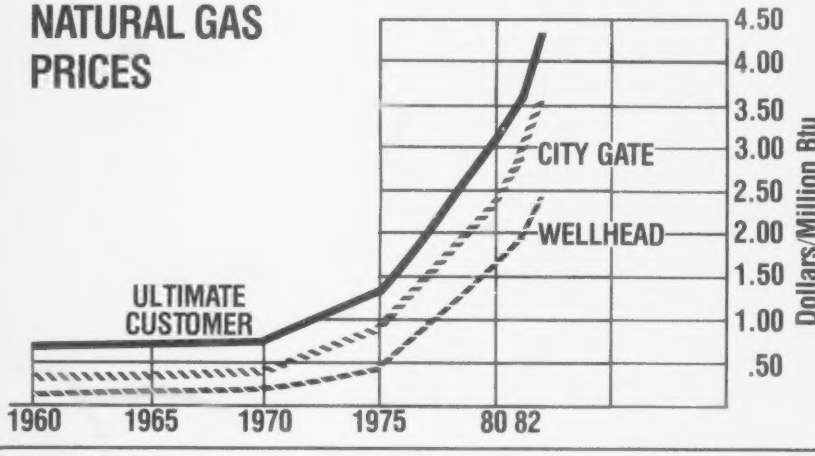
*Prices given are for total usage.
R—Revised.
Sources: For electric price, *Edison Electric Institute Statistical Yearbook*. For oil price, Bureau of Labor Statistics, *Retail Prices and Indexes of Fuels and Utilities*.

CHART 9-1

RESIDENTIAL PRICES OF FUELS & ELECTRICITY



SELECTED NATURAL GAS PRICES



REFERENCE: TABLES 9-5, 9-9, 9-14

TABLE 9-10
AVERAGE RESIDENTIAL GAS PRICES BY CENSUS DIVISION HEATING SEASON—NOVEMBER THRU MARCH

($/MMBtu)

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83*
Total U.S.	$2.10	$2.35	$2.62	$3.28	$3.84	$4.52	$5.56
NE	3.80	3.91	4.07	4.98	5.71	7.04	8.39
MA	2.59	3.02	3.35	3.94	4.67	5.42	6.02
ENC	2.02	2.25	2.44	3.14	3.52	4.12	5.12
WNC	1.72	1.97	2.42	2.75	3.46	4.35	5.35
SA	2.38	2.74	2.98	3.92	4.27	5.17	6.12
ESC	1.72	2.04	2.41	3.09	3.57	4.28	5.38
WSC	1.97	2.15	2.35	2.91	3.23	3.97	4.87
M	1.76	2.02	2.34	2.98	3.79	4.48	5.13
P	1.82	1.89	2.20	2.98	3.59	3.91	4.98

*Data used for 1983 was based on the *Quarterly Report of Gas Industry Operations*.

TABLE 9-11
AVERAGE GAS CONSUMPTION BY HOUSEHEATING CUSTOMERS BY CENSUS DIVISION HEATING SEASON—NOVEMBER THRU MARCH

(MMBtu/Customer)

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83*
Total U.S.	97.5	94.7	93.8	83.3	81.4	81.8	70.7
NE	100.3	96.9	95.2	93.9	92.5	88.8	75.2
MA	125.9	120.9	111.7	107.4	113.6	111.3	89.8
ENC	130.8	125.8	128.0	112.9	115.1	116.1	92.2
WNC	119.2	118.2	113.5	105.3	87.5	93.4	77.8
SA	90.4	88.8	76.2	71.0	74.1	69.9	60.6
ESC	93.8	90.5	86.4	75.1	71.5	68.7	60.3
WSC	67.8	72.0	66.5	53.7	55.5	54.4	54.9
M	78.3	74.5	84.9	76.0	59.2	59.4	62.8
P	56.7	51.1	64.3	50.7	45.6	48.3	47.4

*Data used for 1983 was based on the *Quarterly Report of Gas Industry Operations*.

TABLE 9-12
AVERAGE GAS BILL FOR HOUSEHEATING CUSTOMERS BY CENSUS DIVISION HEATING SEASON—NOVEMBER THRU MARCH

($/Customer)

	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83*
Total U.S.	$205	$223	$246	$273	$313	$370	$393
NE	381	379	387	468	528	625	631
MA	326	365	374	423	531	603	541
ENC	264	283	312	355	405	478	472
WNC	197	233	275	290	303	406	416
SA	215	243	227	278	316	361	371
ESC	161	185	208	232	255	294	325
WSC	134	155	156	156	179	216	267
M	138	150	199	226	224	266	322
P	103	97	141	151	164	189	236

*Data used for 1983 was based on the *Quarterly Report of Gas Industry Operations*.

TABLE 9-13
GAS UTILITY INDUSTRY AVERAGE PRICES, FOR GAS USED FOR ELECTRIC GENERATION, BY STATE, 1976-1982

($/MMBtu)

Division and State	1976	1977	1978	1979	1980R	1981R	1982
United States	**$1.22**	**$1.60**	**$1.72**	**$2.12**	**$2.65**	**$3.24**	**$3.99**
New England	**1.52**	**1.87**	**2.41**	**2.65**	**3.50**	**3.64**	**4.20**
Connecticut	1.11	b	b	b	b	b	b
Maine	b	b	b	b	b	b	b
Massachusetts	1.58	1.90	1.88	2.69	3.53	3.74	4.21
New Hampshire	1.44	1.50	b	b	b	b	b
Rhode Island	b	b	2.04	2.49	3.39	3.35	4.09
Vermont	b	b	b	b	b	b	b
Middle Atlantic	**1.22**	**1.54**	**1.64**	**1.69**	**3.04**	**3.74**	**4.36**
New Jersey	1.17	1.68	1.83	2.84	3.15	3.88	4.59
New York	1.40	1.54	1.55	2.36	3.30	3.84	5.81
Pennsylvania	1.32	1.59	1.63	2.58	2.77	3.38	3.42
East North Central	**1.65**	**2.00**	**2.24**	**2.33**	**2.97**	**3.63**	**4.31**
Illinois	1.40	1.74	2.70	2.61	3.20	3.98	4.33
Indiana	1.21	1.30	1.65	2.26	2.68	3.05	3.54
Michigan	1.88	2.07	1.99	2.10	2.83	3.40	4.34
Ohio	1.02	1.31	1.31	2.24	2.83	3.32	4.28
Wisconsin	1.24	1.91	2.20	2.29	2.89	3.43	4.23
West North Central	**0.79**	**1.07**	**1.16**	**1.43**	**1.90**	**2.25**	**2.82**
Iowa	0.87	1.23	1.66	2.00	2.42	3.10	3.71
Kansas	0.78	1.05	1.16	1.45	1.83	2.12	2.64
Minnesota	0.84	1.18	1.69	1.80	2.02	2.62	3.40
Missouri	0.76	1.09	1.12	1.43	2.35	2.77	3.99
Nebraska	0.82	1.07	1.13	1.17	1.84	2.37	3.08
North Dakota	b	b	b	b	a	a	a
South Dakota	0.87	1.11	1.30	1.45	b	b	b
South Atlantic	**0.76**	**0.97**	**1.27**	**2.16**	**2.24**	**2.84**	**3.22**
Delaware	b	b	b	b	b	b	b
District of Columbia	b	b	b	b	b	b	b
Florida	0.68	0.93	1.15	2.15	2.21	2.81	3.20
Georgia	0.81	1.15	1.60	2.17	2.58	3.32	3.87
Maryland	b	b	b	b	b	4.27	4.22
North Carolina	b	b	b	2.82	3.37	4.55	a
South Carolina	b	b	b	2.92	3.17	4.20	4.22
Virginia	0.92	b	b	b	b	b	b
West Virginia	1.27	1.62	b	b	3.14	4.04	3.93
East South Central	**0.98**	**1.29**	**1.53**	**1.91**	**2.29**	**2.76**	**3.19**
Alabama	1.12	1.47	1.63	b	a	a	a
Kentucky	b	b	b	b	b	b	b
Mississippi	0.98	1.29	1.52	1.91	2.29	2.76	3.19
Tennessee	b	b	b	b	2.33	2.84	a
West South Central	**1.27**	**1.61**	**1.79**	**2.14**	**2.37**	**2.96**	**3.66**
Arkansas	0.80	1.10	1.20	1.74	1.73	2.14	3.18
Louisiana	1.06	1.41	1.59	2.03	2.39	3.03	3.53
Oklahoma	1.02	1.40	1.47	1.61	1.82	1.94	2.25
Texas	1.28	1.56	1.75	2.13	2.48	3.13	3.97
Mountain	**0.95**	**1.35**	**1.45**	**2.06**	**2.44**	**2.93**	**3.63**
Arizona	0.82	1.10	1.38	1.88	2.26	2.92	3.63
Colorado	0.79	1.07	1.31	2.00	2.63	3.28	3.81
Idaho	b	b	b	b	b	b	b
Montana	b	b	b	b	1.93	a	4.04
Nevada	1.42	1.73	1.62	2.36	2.62	3.08	4.16
New Mexico	0.87	1.40	1.55	1.97	2.30	2.65	3.28
Utah	0.92	1.04	1.26	1.53	b	b	b
Wyoming	b	b	b	b	b	b	b
Pacific	**1.53**	**2.06**	**2.14**	**2.40**	**3.45**	**3.91**	**4.95**
Alaska	0.66	0.76	0.88	0.85	0.88	1.19	.95
California	1.56	2.10	2.18	2.44	3.53	3.96	5.07
Hawaii	b	b	b	b	b	b	b
Oregon	b	b	b	b	4.80	5.54	a
Washington	b	b	2.20	3.05	b	4.77	7.54

a. Less than .05 trillion Btu in sales.
b. No sales reported.
R—Revised.

TABLE 9-14
AVERAGE CONSUMER PRICE INDEXES, 1960-1982[a]

(1967=100)

Year	All Items	Total Food	Apparel[b] and Upkeep	Shelter[c]	Gas and Electricity	Fuel Oil[d] and Coal	House Furnishing[e] and Operation	Trans-portation	Medical Care	Personal Care	Reading and Recreation	Other Goods and Services[f]
1960	88.6	88.0	89.6	87.8	98.6	89.2	99.3	89.6	79.1	90.1	87.3	87.8
1961	89.6	89.1	90.2	88.5	99.4	91.0	98.7	90.6	81.4	90.6	89.3	88.5
1962	90.6	89.9	90.5	89.6	99.4	91.5	98.1	92.5	83.5	92.2	91.3	89.1
1963	91.7	91.2	91.9	90.7	99.4	93.2	97.7	93.0	85.6	93.4	92.8	90.6
1964	92.2	92.4	92.7	92.2	99.4	92.7	97.6	94.3	87.3	94.6	95.0	92.0
1965	94.5	94.4	93.7	93.8	99.4	94.6	97.1	95.9	89.5	95.2	94.2	
1966	97.2	99.1	96.1	96.8	99.6	97.0	98.0	97.2	97.1	97.5	97.2	
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.2	103.6	105.4	104.8	100.9	103.1	103.9	103.2	106.1	104.2	104.7	104.6
1969	109.8	108.9	111.5	113.3	102.8	105.6	109.0	107.2	113.4	109.3	108.7	110.3
1970	116.3	114.9	116.1	123.6	107.3	110.1	113.4	112.7	120.6	113.2	113.4	116.2
1971	121.3	118.4	119.8	128.8	114.7	117.5	118.1	118.6	128.4	116.8	119.3	122.2
1972	125.3	123.5	122.3	134.5	120.5	118.5	121.0	119.9	132.5	119.8	122.8	126.1
1973	133.1	141.4	126.8	140.7	126.4	136.0	124.9	123.8	137.7	125.2	125.9	129.0
1974	147.7	161.7	136.2	154.4	145.8	214.6	140.5	137.7	150.5	138.3	133.8	137.2
1975	161.2	175.4	142.3	169.7	169.6	235.3	158.1	150.6	168.6	150.7	144.4	147.4
1976	170.5	180.8	147.6	179.0	189.0	250.8	168.5	165.5	184.7	160.5	151.2	153.3
1977	181.5	192.2	154.2	191.1	213.4	283.4	177.0	177.2	202.4	170.9	157.9	159.2
1978	195.3	211.2	159.5	210.3	232.6	298.3	177.0	185.8	219.4	182.0	g	183.2
1979	217.7	234.7	166.4	240.3	257.6	403.6	188.9	212.8	240.1	195.5	g	196.3
1980	247.0	255.3	177.4	283.1	301.2	557.2	202.9	250.5	267.2	212.7	g	213.6
1981	272.4	274.6	186.9	314.7	345.9	675.9	221.3	280.0	294.5	232.0	g	235.7
1982	289.1	285.7	191.8	337.0	393.8	667.9	233.2	291.5	328.7	248.3	g	257.0

a. Applicable to "wage-earners and clerical workers in urban United States."
b. Includes apparel only prior to June 1964.
c. Includes hotel and motel rates.
d. Starting in 1978 includes bottled gas.
e. Includes house furnishings only prior to 1969.
f. Prior to 1978 included alcoholic beverages, now found in food and beverages; now includes personal care and education—related expenses, formerly found in health and recreation.
g. Not available.
Source: Bureau of Labor Statistics. *The Consumer Price Index*, 1982.

TABLE 9-15
INDEXES OF WHOLESALE PRICES OF GAS, YEARLY AVERAGES, 1960-1982 AND MONTHLY AVERAGES, 1982

(1967=100)

Year and Month	All Gas	Utility Gas	Liquefied Petroleum Gas
1960	87.2	90.5	73.2
1961	88.8	94.9	58.7
1962	89.2	96.8	52.2
1963	91.8	97.5	69.6
1964	90.7	97.7	56.5
1965	92.8	97.8	69.2
1966	96.7	98.6	89.1
1967	100.0	100.0	100.0
1968	91.3	101.9	60.2
1969	93.1	103.0	63.7
1970	103.0	105.6	96.3
1971	108.0	112.2	95.7
1972	114.1	121.0	93.7
1973	126.7	131.3	113.2
1974	162.2	154.6	183.5
1975	216.7	215.3	221.0
1976	286.8	291.8	287.7
1977	387.8	412.3	367.9
1978	428.6	488.2	343.5
1979	544.4	637.6	406.9
1980	760.4	846.6	642.2
1981	939.8	1,099.1	703.6
1982	1,060.8	1,338.1	628.0
January	987.9	1,201.4	661.2
February	987.6	1,220.7	627.8
March	990.5	1,251.0	583.9
April	992.7	1,271.1	555.8
May	1,001.2	1,296.5	536.0
June	1,027.5	1,334.1	543.9
July	1,054.3	1,364.8	564.9
August	1,074.6	1,375.2	602.6
September	1,112.2	1,409.5	647.1
October	1,130.1	1,397.3	716.1
November	1,190.0	1,469.8	756.8
December	1,181.2	1,465.5	740.0

Source: Bureau of Labor Statistics. *Wholesale Prices and Price Index*, 1982. Represents unofficial estimates of U.S. Bureau of Labor Statistics, based on wellhead prices for natural gas by 20 major pipeline companies, and L.P.G. price quotations from 2 major producers.

SECTION 10
ENERGY CONSUMPTION

	1982	% Change 82/81
Annual Consumption		
(Trillions of Btu)		
Total	70,842	− 4.0
Natural Gas Dry	18,356	− 7.1
Crude Petroleum	30,332	− 5.2
Bituminous & Lignite	15,391	− 3.9
Hydropower	3,571	+20.2
Nuclear	3,084	+ 6.3
Other	108	−15.0

Note: Percentage changes based on preliminary data for both years.

TABLE 10-1
ANNUAL CONSUMPTION OF ENERGY RESOURCES IN THE UNITED STATES, BY MAJOR SOURCES, BY CONSUMING SECTORS, 1975-1982[a]

(Trillions of Btu)

Consuming Sectors	Coal and Coke	Natural gas dry[b]	Petroleum[c]	Hydropower[d]	Nuclear power[d]	Other[e]	Total gross energy inputs[f]	Utility electricity purchased[g]	Total Sector energy inputs
Household and commercial:									
1975[R]	238	7,581	3,805	—	—	—	11,624	3,604	15,228
1976[R]	227	7,866	4,181	—	—	—	12,274	3,747	16,021
1977[R]	225	7,461	4,206	—	—	—	11,892	3,955	15,847
1978[R]	239	7,624	4,070	—	—	—	11,933	4,116	16,049
1979[R]	210	7,891	3,448	—	—	—	11,549	4,184	15,733
1980[R]	160	7,539	3,035	—	—	—	10,734	4,355	15,089
1981[R]	186	7,242	2,635	—	—	—	10,063	4,497	14,560
1982[P]	203	7,498	2,489	—	—	—	10,190	4,565	14,755
Industrial:									
1975[R]	3,811[h]	8,532	8,182	32	—	—	20,557	2,346	22,903
1976[R]	3,786	8,761	9,043	33	—	—	21,623	2,573	24,196
1977[R]	3,513[h]	8,636	9,809	33	—	—	21,991	2,682	24,673
1978[R]	3,503[h]	8,539	9,905	32	—	—	21,979	2,761	24,740
1979[R]	3,702[h]	8,549	10,582	34	—	—	22,867	2,873	25,740
1980[R]	3,144[h]	8,394	9,535	33	—	—	21,106	2,781	23,887
1981[R]	3,188[h]	8,260	8,308	33	—	—	19,789	2,817	22,606
1982[P]	2,604[h]	6,909	7,854	33	—	—	17,400	2,542	19,942
Transportation:[i]									
1975[R]	1	595	17,579	—	—	—	18,175	10	18,185
1976[R]	j	559	18,473	—	—	—	19,032	10	19,042
1977[R]	—	543	19,207	—	—	—	19,750	10	19,760
1978[R]	—	539	20,004	—	—	—	20,543	9	20,552
1979[R]	—	612	19,810	—	—	—	20,422	10	20,432
1980[R]	—	648	18,999	—	—	—	19,647	11	19,658
1981[R]	—	658	18,786	—	—	—	19,444	11	19,455
1982[P]	—	607	18,421	—	—	—	19,028	11	19,039
Electricity generation, utilities:									
1975[R]	8,786	3,240	3,166	3,187	1,900	72	20,351	(5,960)	—
1976[R]	9,720	3,152	3,477	3,032	2,111	81	21,573	(6,330)	—
1977[R]	10,243	3,284	3,901	2,482	2,702	82	22,694	(6,647)	—
1978[R]	10,236	3,297	3,987	3,110	3,024	68	23,722	(6,886)	—
1979[R]	11,264	3,609	3,283	3,107	2,715	89	24,067	(7,067)	—
1980[R]	12,122	3,807	2,634	3,085	2,739	114	24,501	(7,147)	—
1981[R]	12,583	3,764	2,202	3,033	2,974	127	24,683	(7,325)	—
1982[P]	12,517	3,335	1,568	3,538	3,084	108	24,150	(7,118)	—
Unaccounted for:									
1975	—	—	—	—	—	—	—	—	—
1976	—	7	—	—	—	—	7	—	7
1977	—	7	—	—	—	—	7	—	7
1978	—	—	—	—	—	—	—	—	—
1979	—	5	—	—	—	—	5	—	5
1980	—	—	—	—	—	—	—	—	—
1981[R]	—	6	—	—	—	—	6	—	6
1982[P]	67	7	—	—	—	—	74	—	74
Total gross energy inputs:									
1975[R]	12,837	19,948	32,731	3,219	1,900	72	70,707	—	56,316
1976[R]	13,733	20,345	35,175	3,066	2,111	81	74,510	—	59,266
1977[R]	13,979	19,931	37,122	2,515	2,702	82	76,332	—	60,287
1978[R]	13,977	20,000	37,965	3,141	3,024	68	78,175	—	61,341
1979[R]	15,175	20,666	37,123	3,141	2,715	89	78,910	—	61,910
1980[R]	15,424	20,391	34,202	3,118	2,739	114	75,988	—	58,634
1981[R]	15,956	19,930	31,931	3,066	2,974	127	73,984	—	56,627
1982[P]	15,391	18,356	30,332	3,571	3,084	106	70,842	—	53,810

a. Gross energy is the total of inputs into the economy of the primary fuels (including imports) or their derivatives, plus the generation of hydro, nuclear power and other (converted to equivalent energy inputs).

b. Excludes natural gas liquids.

c. Petroleum products including still gas, liquefied refinery gas and natural gas liquids.

d. Outputs and hydropower (adjusted for net imports or net exports) are converted to theoretical energy inputs calculated from national average heat rates for fossil-fueled steam-electric plants provided by the Federal Power Commission using 10,388 Btu per net KWH for 1982. Energy input for nuclear power converted at an average heat rate of 10,908 Btu per net KWH based on information from the Atomic Energy Commission. Excludes inputs for power generated by non-utility plants, which are included within the other consuming sectors.

e. Includes geothermal power and electricity produced from wood and waste.

f. Gross energy resource inputs with electricity generation shown as separate consuming sector.

g. Utility electricity generated and imported, distributed to the other consuming sectors as energy resource inputs. Distribution to sectors is based on historical series in Edison Electric Institute Statistical Yearbook. Conversion of electricity to energy equivalent by sector was made at the value of contained energy corresponding to 100 percent thermal efficiency using a theoretical rate of 3,412 Btu/KWH.

h. Includes net imports of coke of 14 trillion Btu in 1975, 15 trillion Btu in 1977, 131 trillion Btu in 1978, 66 trillion Btu in 1979, −37 trillion Btu in 1980, −17 trillion Btu in 1981, and −23 trillion Btu in 1982.

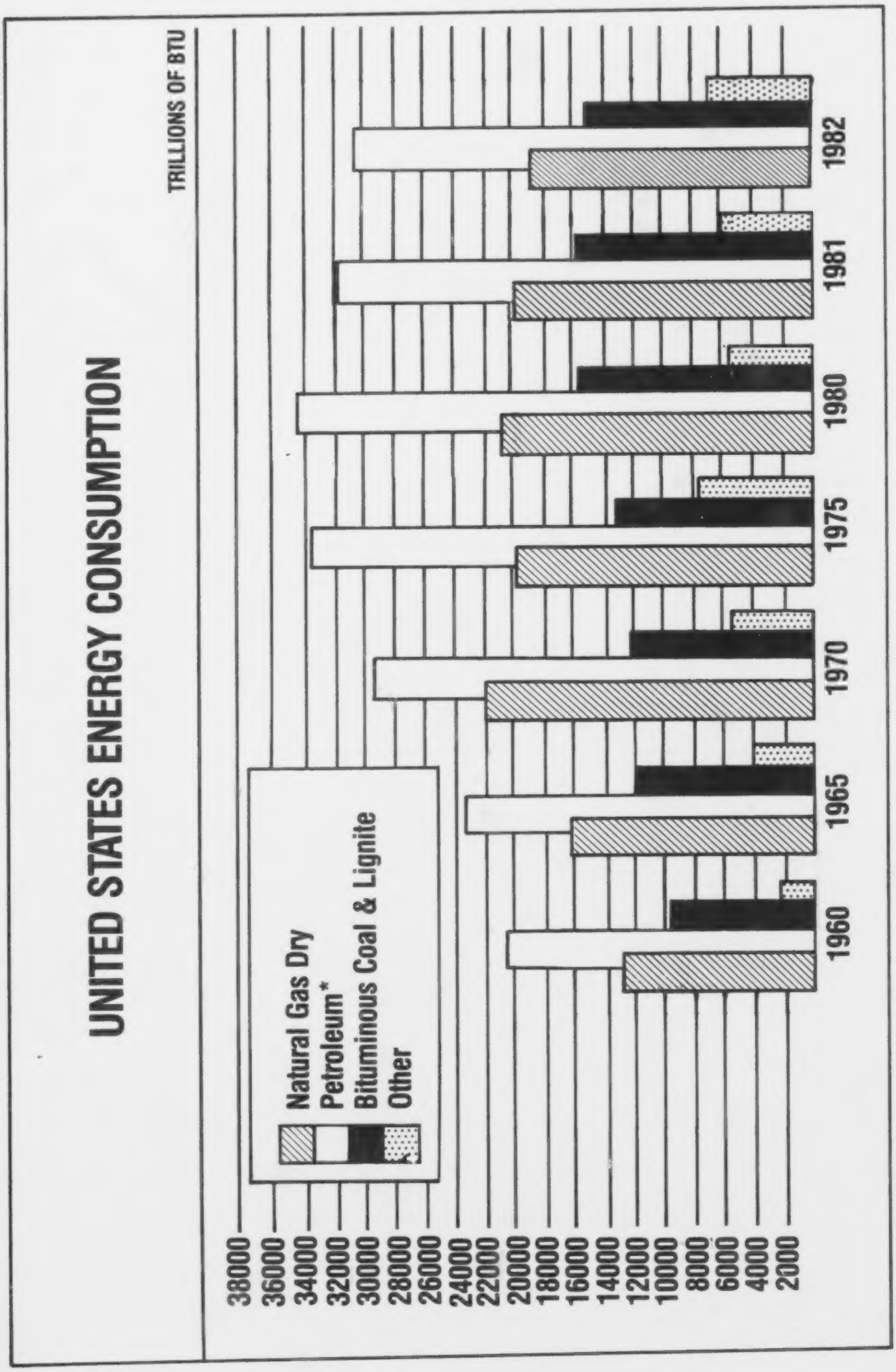
i. Includes bunkers and military transportation.

j. Less than 0.5 trillions of Btu. R—Revised. Note that all years have been revised. P—Preliminary.

Source: Prior to 1977, U.S. Bureau of Mines, 1977 and beyond, U.S. Department of Energy, *Monthly Energy Review*.

ENERGY CONSUMPTION

CHART 10-1



REFERENCE: TABLE 10-2 * Includes Natural Gas Liquids

TABLE 10-2

ANNUAL CONSUMPTION OF FOSSIL ENERGY RESOURCES AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER IN THE UNITED STATES, 1960-1982[a]

(Trillions of Btu)[b]

Year	Natural Gas Dry[c]	Natural Gas Liquids	Crude Petroleum and Products	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power[d]	Nuclear[d]	Other[h]	Grand Total Energy
1960	12,736	1,427	18,608	9,967	447	1,626	5	*	44,816
1961	13,228	1,498	18,989	9,809	404	1,628	17	*	45,573
1962	14,027	1,586	19,681	10,160	363	1,780	23	*	47,620
1963	14,843	1,703	20,247	10,722	361	1,740	33	*	49,649
1964	15,515	1,772	20,700	11,295	365	1,873	34	*	51,554
1965	16,097	1,853	21,566	12,030	328	2,057	38	*	53,969
1966	17,393	1,989	22,405	12,740	290	2,073	58	*	56,948
1967	18,250	2,043	23,292	11,982	274	2,344	80	*	58,265
1968	19,580	2,239	24,813	12,401	258	2,342	130	*	61,763
1969	21,020	2,459	25,962	12,509	224	2,659	146	*	64,979
1970	22,029	2,494	27,043	12,488	210	2,650	229	*	67,143
1971	22,470	2,496	28,074	11,858	187	2,862	404	*	68,351
1972	22,698	2,706	30,260	12,273	150	2,946	576	*	71,609
1973	22,512	2,652	32,188	13,148[e]	144	3,009	910	46	74,609
1974	21,733	2,565	30,890	12,796[e]	139	3,309	1,272	56	72,759
1975	19,948	2,484	30,247	12,707[e]	130	3,219	1,900	72	70,707
1976	20,345	f	35,175	13,601	132	3,066	2,111	81	74,510
1977	19,931	f	37,122	13,980[e]	g	2,515	2,702	82	76,332
1978	20,000	f	37,965	13,977[e]	g	3,141	3,024	68	78,175
1979	20,666	f	37,123	15,175[e]	g	3,141	2,715	89	78,910
1980[R]	20,391	f	34,202	15,424[e]	g	3,118	2,739	114	75,988
1981[R]	19,930	f	31,931	15,956[e]	g	3,066	2,974	127	73,984
1982[P]	18,356	f	30,332	15,391[e]	g	3,571	3,084	108	70,842

a. Represents production minus exports plus imports, and adjusted for change in inventories.
b. The Btu value per cubic foot for natural gas dry for 1964 and prior years is 1,035; 1965-1968 1,032; 1969, 1971 and 1972 1,031; 1973 1,027; 1974 1,021; 1975 1,024; 1976-1977 1,021; 1978 1,019; 1979 1,021; 1980 1,026; 1981-1982 1,027. See Table 3-14 for Btu values assigned to other energy sources.
c. Marketed production minus shrinkage caused by liquids extraction.
d. See Table 3-1 for procedures used to determine Btu equivalents.
e. Includes net imports of coke of −8 trillion Btu in 1973, 59 trillion Btu in 1974, 14 trillion Btu in 1975, 15 trillion Btu in 1977, 131 trillion Btu in 1978, 66 trillion Btu in 1979, −37 trillion Btu in 1980, −17 trillion Btu in 1981, −23 trillion Btu in 1982.
f. Included in "Crude Petroleum and Products."
g. Included in "Bituminous Coal and Lignite."
h. Includes energy from geothermal, wood or waste products.

R—Revised P—Preliminary *—Not available.

Source: Prior to 1977, U.S. Bureau of Mines, 1977 and beyond, U.S. Department of Energy, *Monthly Energy Review*.

ENERGY CONSUMPTION

TABLE 10-3

ANNUAL CONSUMPTION OF FOSSIL ENERGY RESOURCES AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER IN THE UNITED STATES, 1960-1982

(Percentage)

Year	Natural Gas Dry	Natural Gas Liquids	Crude Petroleum and Products	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power	Nuclear	Other	Grand Total Energy
1960	28.4	3.2	41.6	22.2	1.0	3.6	a	*	100.0
1961	29.0	3.3	41.6	21.5	0.9	3.6	0.1	*	100.0
1962	29.5	3.3	41.3	21.3	0.8	3.7	0.1	*	100.0
1963	29.9	3.4	40.8	21.6	0.7	3.5	0.1	*	100.0
1964	30.5	3.4	39.9	21.8	0.7	3.6	0.1	*	100.0
1965	29.8	3.4	40.0	22.3	0.6	3.8	0.1	*	100.0
1966	30.9	3.5	39.7	22.4	0.5	3.7	0.1	*	100.0
1967	31.3	3.5	40.0	20.6	0.5	4.0	0.1	*	100.0
1968	31.7	3.6	40.2	20.1	0.4	3.8	0.2	*	100.0
1969	32.4	3.8	39.9	19.3	0.3	4.1	0.2	*	100.0
1970	32.8	3.7	40.3	18.6	0.3	4.0	0.3	*	100.0
1971	32.9	3.6	41.1	17.3	0.3	4.2	0.6	*	100.0
1972	31.7	3.8	42.3	17.1	0.2	4.1	0.8	*	100.0
1973	30.2	3.6	43.1	17.6	0.2	4.0	1.2	0.1	100.0
1974	29.9	3.5	42.5	17.6	0.2	4.5	1.7	0.1	100.0
1975	28.2	3.5	42.8	18.0	0.2	4.5	2.7	0.1	100.0
1976	27.3	c	47.2	18.3	0.2	4.1	2.8	0.1	100.0
1977	26.1	c	48.6	18.3	b	2.3	3.5	0.1	100.0
1978	25.6	c	48.6	17.9	b	4.0	3.8	0.1	100.0
1979	26.2	c	47.0	19.2	b	4.0	3.5	0.1	100.0
1980[R]	26.8	c	45.0	20.3	b	4.1	3.6	0.2	100.0
1981[R]	26.9	c	43.2	21.6	b	4.1	4.0	0.2	100.0
1982	25.9	c	42.8	21.7	b	5.0	4.4	0.2	100.0

a. Less than 0.05.
b. Included in "Bituminous Coal and Lignite."
c. Included in "Crude Petroleum and Products."

Source: Same as Table 10-2.
R—Revised.
*—Unavailable.

TABLE 10-4

ENERGY CONSUMPTION PER CAPITA IN THE UNITED STATES, 1960-1982

Year	Total Energy Consumed (Trillions of Btu)	Natural Gas Consumed (Trillions of Btu)	Resident Population (Thousands)	Energy Consumed Per Capita (Millions of Btu)	Natural Gas Consumed Per Capita (Millions of Btu)	Gross National Product (1972 $)[B]	Total Energy Per Dollar of GNP (1972 $)[B]	Index of Industrial Production (1972 = 100)
1960	44,816	12,736	179,992	249	71	737.2	60.8	55.3
1961	45,573	13,228	183,057	249	72	756.6	60.2	55.7
1962	47,620	14,027	185,890	256	75	800.3	59.5	60.3
1963	49,649	14,843	188,658	263	79	832.5	59.6	63.8
1964	51,554	15,515	191,372	269	81	876.4	58.8	68.3
1965	53,969	16,097	193,815	278	83	929.3	58.1	73.8
1966	56,948	17,393	195,936	291	89	984.8	57.8	80.7
1967	58,265	18,250	197,859	294	92	1,011.4	57.6	82.2
1968	61,763	19,580	199,846	309	98	1,058.1	58.4	86.8
1969	64,979	21,020	201,423	323	104	1,087.6	59.7	91.0
1970	67,143	22,029	203,302	330	108	1,085.6	61.8	88.1
1971	68,351	22,470	206,827	330	109	1,122.4	60.9	91.6
1972	71,609	22,698	209,284	342	108	1,185.9	60.4	100.0
1973	74,609	22,512	211,357	353	107	1,254.3	59.5	108.4
1974	72,759	21,733	213,342	341	102	1,246.3	58.4	108.0
1975	70,707	19,948	215,465	328	93	1,231.6	57.4	98.6
1976	74,510	20,345	217,563	343	94	1,298.2	57.4	108.0
1977	76,332	19,931	219,760	347	91	1,369.7	55.7	115.2
1978	78,175	20,000	222,095	352	90	1,438.6	54.3	122.1
1979	78,910	20,666	224,567	351	92	1,479.4	53.3	127.8
1980[R]	75,988	20,391	226,505	335	90	1,474.0	51.6	123.8
1981[R]	73,984	19,930	229,307	323	87	1,502.6	49.2	126.2
1982	70,842	18,356	231,507	306	79	1,475.5	48.0	117.7

Sources: U.S. Department of Energy, U.S. Bureau of the Census and the Federal Reserve Board.
R—Revised.

TABLE 10-5
GAS UTILITY INDUSTRY AVERAGE ANNUAL CONSUMPTION PER CUSTOMER, BY CLASS OF SERVICE 1960-1982[a]

(MMBtu/Customer)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	281.0	104.8	374.2	33,495.0	12,577.5
1961	283.4	106.7	390.7	32,621.7	13,468.7
1962	295.1	110.9	420.7	32,713.9	13,795.1
1963	302.8	112.1	430.6	33,630.8	13,460.2
1964	317.9	115.3	469.5	37,089.1	13,234.6
1965	320.9	116.5	482.1	36,982.6	12,009.8
1966	336.4	118.8	510.0	38,259.3	12,755.1
1967	345.2	121.5	537.8	38,710.3	11,397.0
1968	362.4	124.1	567.6	40,378.0	13,129.2
1969	376.7	128.4	611.0	42,220.0	11,327.2
1970	386.8	129.2	640.9	42,386.7	12,232.3
1971	395.0	129.9	673.8	42,235.0	17,064.6
1972	397.7	130.4	697.3	41,948.8	16,428.8
1973	377.0	124.5	684.6	40,051.7	15,129.5
1974	361.1	119.6	676.1	42,066.8	12,586.1
1975	333.6	121.9	708.9	37,253.5	12,039.8
1976	329.7	121.3	718.6	40,022.3	3,511.6
1977	316.8	118.7	714.8	39,217.5	3,996.3
1978	322.2	121.0	743.6	36,635.8	4,511.8
1979	330.3	118.6	726.5	40,345.3	5,133.9
1980[R]	326.4	111.0	701.0	42,505.2	3,645.2
1981[R]	320.7	104.4	666.4	44,020.2	3,235.0
1982	294.9	107.1	680.6	37,036.0	3,225.6

a. Excludes customers purchasing for resale and sales for resale. Customer data is based on yearly averages. Excludes data for Alaska prior to 1961.

b. Prior to 1976, "Other" electric generation (See Table 6-12) [illegible] included in the "Other" class of service. For 1976 and beyond, all electric generation is included in the Industrial category.

R—Revised.

TABLE 10-6
GAS UTILITY INDUSTRY AVERAGE ANNUAL RESIDENTIAL CONSUMPTION PER CUSTOMER BY STATE, 1960-1982[a]

(MMBtu/Customer)

Division and State	1960	1965	1970	1975	1980[R]	1981[R]	1982
United States	**104.8**	**116.5**	**129.2**	**121.9**	**111.0**	**104.4**	**107.1**
New England	**49.5**	**67.7**	**86.0**	**85.3**	**90.0**	**91.7**	**91.7**
Connecticut	51.2	68.7	87.6	84.6	88.1	90.6	88.3
Maine	29.3	32.1	38.2	38.7	43.2	44.7	48.6
Massachusetts	50.2	69.2	87.0	86.0	91.3	92.3	92.3
New Hampshire	51.4	74.1	93.3	95.1	97.7	98.8	104.6
Rhode Island	47.6	65.0	82.9	84.0	86.7	91.6	94.1
Vermont	19.9	23.1	65.2	93.3	102.8	106.5	104.7
Middle Atlantic	**77.6**	**91.2**	**107.3**	**102.1**	**102.8**	**104.7**	**103.4**
New Jersey	56.9	73.5	92.2	88.5	89.7	90.0	89.8
New York	63.3	77.7	91.5	89.4	90.7	94.4	95.4
Pennsylvania	117.8	128.7	146.5	135.1	133.3	133.0	127.2
East North Central	**137.1**	**159.3**	**175.7**	**164.5**	**158.6**	**148.9**	**150.3**
Illinois	109.4	139.9	164.8	168.9	162.5	155.1	161.3
Indiana	103.5	134.1	159.9	151.5	143.9	136.7	140.3
Michigan	146.4	173.5	189.1	167.7	172.8	158.2	155.6
Ohio	183.0	188.5	193.5	171.2	158.3	150.9	147.7
Wisconsin	92.2	129.0	145.0	139.0	130.8	116.4	122.4
West North Central	**151.0**	**158.9**	**167.9**	**152.6**	**131.3**	**116.1**	**127.7**
Iowa	149.3	162.1	167.8	152.2	127.7	115.0	126.8
Kansas	157.0	156.6	165.8	150.4	126.6	111.8	121.5
Minnesota	145.9	167.3	175.6	159.7	138.9	124.5	137.4
Missouri	149.9	152.0	165.5	148.9	133.2	116.4	124.2
Nebraska	160.5	162.3	167.5	155.2	128.9	111.2	130.0
North Dakota	118.8	164.5	171.4	163.0	127.6	114.6	136.2
South Dakota	145.8	158.5	153.2	145.0	117.4	105.1	123.0
South Atlantic	**93.1**	**95.9**	**111.0**	**96.3**	**93.2**	**93.5**	**88.3**
Delaware	63.7	85.6	109.0	93.6	93.4	90.7	88.0
District of Columbia	79.8	87.8	102.7	95.9	103.5	103.6	98.6
Florida	19.6	27.1	48.2	38.6	40.0	38.7	34.1
Georgia	110.9	103.1	123.9	103.5	96.9	96.3	92.6
Maryland	84.3	95.3	110.6	97.5	96.6	98.0	93.9
North Carolina	78.2	89.8	112.1	92.7	97.1	96.4	92.5
South Carolina	68.8	75.9	91.1	72.7	77.3	75.9	67.3
Virginia	83.4	94.0	111.1	100.1	99.7	101.7	95.8
West Virginia	163.5	159.0	161.0	149.4	131.0	134.5	125.3
East South Central	**118.1**	**111.5**	**126.0**	**107.1**	**102.4**	**97.1**	**93.8**
Alabama	96.6	90.7	106.9	91.2	86.9	85.3	81.1
Kentucky	153.3	144.9	157.4	136.7	130.4	121.5	117.1
Mississippi	97.7	89.0	105.5	86.6	85.9	80.6	76.9
Tennessee	118.6	114.3	126.5	105.5	101.7	94.8	94.5
West South Central	**96.5**	**92.2**	**104.6**	**95.9**	**84.3**	**76.1**	**80.6**
Arkansas	121.7	113.8	133.0	114.0	95.6	86.3	101.3
Louisiana	87.4	82.1	95.9	81.9	77.0	74.3	71.8
Oklahoma	114.9	116.3	126.8	120.6	103.5	91.7	103.4
Texas	91.2	86.3	97.6	91.5	80.2	71.2	74.4
Mountain	**138.2**	**140.2**	**140.5**	**131.0**	**103.9**	**89.1**	**99.8**
Arizona	75.3	77.0	78.4	77.3	59.1	52.1	57.9
Colorado	150.1	153.4	155.0	147.2	119.8	94.5	104.6
Idaho	100.5	118.0	114.7	110.7	79.5	71.5	76.7
Montana	175.9	185.0	175.5	171.2	126.1	111.1	128.0
Nevada	88.8	103.1	112.5	113.2	87.5	81.6	98.2
New Mexico	133.1	134.4	130.3	126.6	99.1	87.3	93.0
Utah	202.4	201.2	212.1	180.1	139.0	125.4	142.4
Wyoming	173.9	173.0	180.5	161.7	128.6	110.6	128.6
Pacific	**92.3**	**104.6**	**105.7**	**109.9**	**81.6**	**73.8**	**80.2**
Alaska	b	230.0	199.3	221.3	216.9	204.3	229.9
California	93.2	105.0	104.6	109.4	80.5	72.9	79.1
Hawaii	25.2	27.2	33.7	29.1	25.0	23.1	22.5
Oregon	78.9	90.6	113.2	107.0	79.8	72.1	77.8
Washington	105.1	115.5	128.3	122.0	95.5	83.9	90.8

a. Customer data is based on yearly averages.
b. Not available.
R—Revised.

TABLE 10-7
HEATING DEGREE DAYS[a] BY CALENDAR YEAR AND HEATING SEASONS, 1981-1982, AND THIRTY-YEAR NORMALS

	Calendar Year Degree Days			Heating Season Degree Days[b]		
Division and State	30-Year[c] Normals 1951-1980	1981	1982	30-Year[c] Normals 1951/52-1980/81	1981-1982	1982-1983
United States	**4,694**	**4,653**	**4,754**	**3,798**	**3,931**	**3,462**
New England	**6,562**	**6,582**	**6,662**	**5,071**	**5,294**	**4,556**
Connecticut	6,146	6,113	6,079	4,839	4,987	4,280
Maine	7,945	7,670	8,244	5,892	6,174	5,411
Massachusetts	6,322	6,464	6,490	4,913	5,168	4,437
New Hampshire	7,599	7,370	7,708	5,752	5,999	5,140
Rhode Island	5,968	6,092	5,955	4,629	4,782	4,079
Vermont	7,979	7,869	8,106	6,045	6,331	5,523
Middle Atlantic	**5,820**	**6,005**	**5,879**	**4,661**	**4,928**	**4,173**
New Jersey	5,424	5,652	5,487	4,422	4,699	3,964
New York	5,943	6,046	6,004	4,730	4,967	4,228
Pennsylvania	5,881	6,167	5,943	4,708	5,014	4,222
East North Central	**6,375**	**6,446**	**6,537**	**5,131**	**5,493**	**4,467**
Illinois	6,175	6,154	6,515	5,083	5,542	4,472
Indiana	5,871	5,982	5,979	4,815	5,207	4,126
Michigan	6,823	6,931	6,944	5,363	5,690	4,667
Ohio	5,897	6,156	5,869	4,766	5,061	4,093
Wisconsin	7,665	7,411	7,981	6,004	6,312	5,318
West North Central	**6,657**	**6,118**	**7,014**	**5,419**	**5,704**	**4,929**
Iowa	6,932	6,336	7,287	5,663	6,011	5,060
Kansas	4,988	4,535	5,297	4,271	4,463	4,093
Minnesota	8,771	8,011	9,143	6,855	7,129	6,180
Missouri	5,091	4,923	5,371	4,344	4,658	3,934
Nebraska	6,435	5,748	6,880	5,261	5,500	4,922
North Dakota	9,481	8,333	10,167	7,277	7,692	6,487
South Dakota	7,714	6,700	8,155	6,091	6,292	5,454
South Atlantic	**2,999**	**3,295**	**2,840**	**2,603**	**2,694**	**2,401**
Delaware	4,784	4,893	4,670	4,007	4,219	3,493
District of Columbia	d	d	d	d	d	d
Florida	720	973	481	713	624	679
Georgia	2,788	3,084	2,535	2,507	2,536	2,376
Maryland	4,811[e]	4,939[e]	4,740[e]	4,034[e]	4,261[e]	3,571[e]
North Carolina	3,481	3,877	3,357	3,043	3,192	2,843
South Carolina	2,743	3,078	2,543	2,495	2,565	2,395
Virginia	4,327	4,682	4,316	3,661	3,291	3,394
West Virginia	5,250	5,703	5,074	4,270	4,455	3,795
East South Central	**3,555**	**3,757**	**3,357**	**3,109**	**3,129**	**2,865**
Alabama	2,828	3,046	2,579	2,549	2,504	2,466
Kentucky	4,544	4,764	4,356	3,861	3,956	3,411
Mississippi	2,510	2,603	2,286	2,308	2,245	2,214
Tennessee	3,954	4,191	3,807	3,422	3,481	3,125
West South Central	**2,313**	**2,204**	**2,262**	**2,142**	**2,074**	**2,136**
Arkansas	3,327	3,293	3,329	2,991	3,069	2,817
Louisiana	1,794	1,883	1,576	1,703	1,609	1,669
Oklahoma	3,571	3,302	3,625	3,213	3,256	3,107
Texas	2,035	1,891	2,005	1,908	1,800	1,957
Mountain	**5,529**	**4,890**	**5,791**	**4,182**	**3,998**	**4,060**
Arizona	2,313	1,832	2,277	2,037	1,778	2,028
Colorado	7,123	6,395	7,460	5,192	4,997	5,133
Idaho	6,935	6,386	7,480	5,061	5,065	4,798
Montana	8,260	7,312	8,803	5,822	5,915	5,250
Nevada	4,263	3,681	4,577	3,373	3,201	3,328
New Mexico	4,756	4,187	4,706	3,842	3,481	3,840
Utah	6,555	5,891	7,098	4,966	4,822	4,751
Wyoming	8,023	7,119	8,472	5,744	5,563	5,440
Pacific	**3,322**	**2,861**	**3,461**	**2,432**	**2,353**	**2,340**
Alaska	f	f	f	f	f	f
California	2,703	2,224	2,832	2,060	1,965	2,013
Hawaii	f	f	f	f	f	f
Oregon	5,255	4,913	5,496	3,573	3,561	3,369
Washington	5,637	5,204	5,764	3,840	3,811	3,553

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a. See glossary for definitions of (heating) degree days. Division heating degree days are the weighted average of all states in a region, according to the 1980 population. National heating degree days are the weighted average of all divisions, according to the 1980 population.

b. Heating season is defined as November through March period.

c. The transference of many weather stations between city locations and nearby airports at some time during the 30 year period has led to the introduction of slight inconsistencies in the average data.

d. Included in Maryland. e. Includes the District of Columbia. f. Not available.

R—Revised.

Source: National Oceanic and Atmospheric Administration, *Monthly State, Regional and National Heating Degree Days Weighted by Population*.

TABLE 10-8
GAS UTILITY INDUSTRY AVERAGE ANNUAL CONSUMPTION PER CUSTOMER BY STATE AND CLASS OF SERVICE, 1982[a]

(MMBtu/Customer)

		Class of Service			
Division and State	Total	Residential	Commercial	Industrial	Other
United States	**294.9**	**107.1**	**680.6**	**37,036.0**	**3,225.6**
New England	**182.6**	**91.7**	**761.9**	**7,967.0**	**704.8**
Connecticut	189.7	88.3	730.4	8,553.6	1,077.4
Maine	177.9	48.6	456.6	12,465.7	b
Massachusetts	181.0	92.3	854.6	7,762.2	753.5
New Hampshire	198.0	104.6	596.6	11,303.9	1,275.0
Rhode Island	161.5	94.1	440.3	5,715.0	b
Vermont	290.1	104.7	641.5	96,050.0	267.3
Middle Atlantic	**200.1**	**103.4**	**573.3**	**21,034.1**	**3,586.6**
New Jersey	178.5	89.8	455.9	15,451.8	7,837.5
New York	164.2	95.4	517.4	13,744.8	3,393.8
Pennsylvania	277.2	127.2	799.3	39,625.3	4,139.5
East North Central	**305.4**	**150.3**	**878.7**	**23,519.2**	**2,725.2**
Illinois	315.6	161.3	964.3	17,393.4	450.3
Indiana	363.6	140.3	691.4	49,994.4	5,930.7
Michigan	290.0	155.6	1,051.0	19,297.9	126,400.0
Ohio	285.5	147.7	815.4	37,232.8	2,681.6
Wisconsin	291.3	122.4	671.1	16,506.7	39,528.6
West North Central	**287.8**	**127.7**	**736.3**	**30,717.8**	**3,341.2**
Iowa	304.9	126.8	659.7	48,896.5	1,079.7
Kansas	360.6	121.5	689.2	28,294.4	11,259.9
Minnesota	294.6	137.4	685.7	20,005.8	2,180.3
Missouri	232.4	124.2	939.8	80,569.3	2,032.9
Nebraska	290.9	130.0	583.6	32,925.3	363.5
North Dakota	266.3	136.2	1,078.1	29,601.8	b
South Dakota	234.3	123.0	702.7	11,373.7	1,900.0
South Atlantic	**293.1**	**88.3**	**717.9**	**45,813.9**	**1,553.0**
Delaware	285.6	88.0	771.9	56,202.3	12,522.8
District of Columbia	196.0	98.6	1,038.2	b	b
Florida	520.8	34.1	817.3	378,898.6	4,012.6
Georgia	269.9	92.6	752.2	62,357.3	555.3
Maryland	196.6	93.9	616.0	11,210.8	1,164.3
North Carolina	356.9	92.5	567.2	39,343.6	4,575.1
South Carolina	321.5	67.3	576.0	51,022.0	183.2
Virginia	258.5	95.8	843.1	22,383.4	3,740.4
West Virginia	288.3	125.3	688.5	111,404.6	2,938.9
East South Central	**317.7**	**93.8**	**548.7**	**60,669.5**	**1,545.7**
Alabama	284.5	81.1	550.0	57,898.1	167.0
Kentucky	243.8	117.1	541.6	41,322.1	4,239.9
Mississippi	417.1	76.9	369.0	100,842.1	3,390.8
Tennessee	376.0	94.5	659.7	52,514.9	577.2
West South Central	**567.7**	**80.6**	**519.2**	**104,531.0**	**7,147.9**
Arkansas	408.6	101.3	511.7	81,945.7	3,420.2
Louisiana	454.7	71.8	388.3	152,584.1	13,124.6
Oklahoma	527.1	103.4	582.0	95,133.0	2,502.0
Texas	637.4	74.4	535.7	102,047.1	6,155.6
Mountain	**249.7**	**99.8**	**627.6**	**36,197.6**	**4,184.5**
Arizona	192.1	57.9	509.5	29,036.0	3,814.5
Colorado	220.6	104.6	673.2	32,594.5	8,103.4
Idaho	309.0	76.7	577.6	83,536.2	b
Montana	265.4	128.0	715.5	24,306.3	48,459.1
Nevada	273.7	98.2	1,472.3	341,635.3	71,260.0
New Mexico	289.7	93.0	482.2	17,396.3	4,207.9
Utah	280.2	142.4	586.2	77,589.7	11,800.0
Wyoming	410.1	128.6	651.4	156,371.9	1,535.7
Pacific	**224.9**	**80.2**	**627.2**	**23,614.7**	**9,402.4**
Alaska	724.5	229.9	765.8	31,182.4	b
California	218.1	79.1	630.4	24,571.6	9,160.5
Hawaii	98.7	22.5	341.3	1,066.9	b
Oregon	237.2	77.8	478.5	49,821.6	b
Washington	294.9	90.8	715.6	17,898.7	11,375.0

a. Excludes customers purchasing for resale and sales for resale. Customer data is based on yearly averages.
b. No sales reported.

SECTION 11
APPLIANCE AND HOUSING DATA

	1982	% Change 82/81
Manufacturer Shipments		
(Thousands of Units)		
Central Heating	1,304	−17.4
Ranges	1,368	− 8.6
Water Heaters	3,041	+ 9.2
Clothes Dryers	584	− 8.6
New One-Family Houses Completed		
(Thousands of Units)		
Gas Heat	252	−25.7

TABLE 11-1
MANUFACTURER SHIPMENTS OF GAS RANGES, WATER HEATERS AND CLOTHES DRYERS, 1960-1982[a]

(Thousands of units)

Year	Domestic Range Sales			Automatic Domestic Water Heater Sales			Automatic Gas Dryers[e]
	Free-Standing[b]	Built-in	Total	Natural Gas	L.P. Gas	Total	
1960	1,475	339	1,814	2,383	338	2,721	431
1961	1,484	346	1,830	2,448	284	2,732	412
1962	1,621	360	1,981	2,588	288	2,876	475
1963	1,714	358	2,072	2,346	251	2,597	535
1964	1,826	345	2,171	2,482	242	2,724	632
1965	1,976	291	2,267	2,497	240	2,737	710
1966	1,931	232	2,163	2,341	296	2,637	751
1967	1,954	169	2,123	2,246	309	2,555	829
1968	2,102	184	2,286	2,411	345	2,756	876
1969	2,282	189	2,471	2,386	356	2,742	905
1970	2,195	167	2,362	2,404	381	2,785	852
1971	2,363	186	2,549	2,645	443	3,088	847
1972	2,467	194	2,661	2,676	487	3,163	936
1973	2,312	169	2,481	2,568	512	3,080	926
1974	1,825	125	1,950	2,210	359	2,569	739
1975	1,493	125	1,618	2,388	257	2,645	672
1976	1,693	131	1,824	2,695	417	3,112	707
1977	1,615	131	1,746	c	c	3,158[d]	736
1978	1,665	129	1,794	2,578	343	2,921	757
1979	1,542	129	1,670	2,548	339	2,887	757
1980	1,437	102	1,539	2,498	320	2,818	682
1981	1,401	95	1,496	2,462	324	2,786	639
1982	1,289	79	1,368	2,771	270	3,041	584

a. Shows shipments by manufacturers, expanded from returns of reporting companies to represent industry-wide coverage. Shipments of appliances for L.P. gas users include those for use by customers obtaining such gas through utility mains, as well as bottled gas users.
b. Free-standing includes free-standing, "set-in" and high-oven ranges.
c. Not available.
d. Estimated.
e. Excludes combination washer-dryer units.
Source: Gas Appliance Manufacturers Association. *Statistical Highlights*, Ten Year Summary, 1973-1982.

APPLIANCE AND HOUSING DATA

TABLE 11-2
MANUFACTURER SHIPMENTS OF GAS HEATING EQUIPMENT, 1960-1982[a]

(Thousands of units)

	Central Heating Equipment					
Year	Warm Air Furnaces	Conversion Burners	Boilers	Total	Floor and Wall Furnaces Total	Direct Heating Equipment Total
1960	900	132	153	1,185	453	1,211
1961	929	116	168	1,213	467	1,067
1962	1,009	104	175	1,288	515	1,161
1963	1,102	108	184	1,394	525	1,324
1964	1,186	101	199	1,486	555	1,190
1965	1,238	93	200	1,531	501	994
1966	1,213	93	186	1,492	515	1,034
1967	1,146	84	174	1,404	471	920
1968	1,428	79	187	1,694	555	974
1969	1,546	77	176	1,799	576	1,043
1970	1,471	66	164	1,701	545	781
1971	1,795	53	157	2,005	612	783
1972	2,066	40	156	2,262	762	708
1973	1,719	43	147	1,909	652	678
1974	1,476	89	123	1,688	409	488
1975	1,186	39	88	1,313	435	332
1976	1,554	26	113	1,693	523	306
1977	1,508	b	113	1,621	499	193
1978	1,636	b	126	1,762	532	175
1979	1,863	b	221	2,084	376	193
1980	1,446	b	293	1,739	199	222^{R}
1981	1,417	b	162	1,579	127	133^{R}
1982	1,156	b	148	1,304	133	182

a. Shows shipments by manufacturers: expanded from returns of reporting companies to represent industry-wide coverage. Includes shipments for use by utility customers and bottled gas users.
b. Not available.
R—Revised.
Source: Gas Appliance Manufacturers Association. *Statistical Highlights*, Ten Year Summary, 1973-1982.

TABLE 11-3
MANUFACTURER SHIPMENTS OF RESIDENTIAL GAS APPLIANCES, BY MONTH, 1982

(Thousands of units)

	Ranges				Central Heating	
Month	Free-Standing[a]	Built-in	Automatic Water Heaters	Dryers[b]	Warm Air Furnaces	Boilers
January	93	6	239	48	80	8
February	101	7	268	53	69	8
March	128	8	305	54	77	8
April	102	8	295	44	70	9
May	106	7	246	40	70	6
June	116	7	248	46	85	10
July	89	6	230	42	78	7
August	94	5	225	52	98	14
September	127	6	233	55	126	21
October	107	6	260	54	140	24
November	108	6	236	56	127	18
December	119	7	257	41	138	14
Total[c]	1,289	78	3,041	584	1,156	148

a. Includes "set-in" type ranges, and high-oven ranges.
b. Excludes combination washer-dryer units.
c. Totals may not add due to rounding.
Source: Gas Appliance Manufacturers Association. *Statistical Highlights*, Ten Year Summary, 1973-1982.

TABLE 11-4
MANUFACTURER SHIPMENTS OF GAS RANGES, BY TYPE OF RANGE, 1982

Type of Range	Units (Thousands)	Percentages of Total
Apartment Ranges	178.7	13.1
Standard Ranges[a]	1,037.9	75.9
Total Free Standing Ranges[b]	1,216.6	89.0
High Oven Ranges	72.3	5.3
Total Free Standing and High Oven Ranges	1,288.9	94.3
Built-In Units	78.6	5.7
Total[a]	1,367.5	100.0

a. The above figures exclude gas ranges used in travel trailers and recreational vehicles.
b. Includes "set-in" type ranges.
Source: Gas Appliance Manufacturers Association. *Residential Gas Ranges*, December 1982.

TABLE 11-5
MANUFACTURER SHIPMENTS OF GAS WATER HEATERS, BY SIZE, 1982[a]

Size in Gallons	Total Shipments (Thousands of Units)	Percentage of Total Shipments
Less than 30	36.5	1.2
30-39.9	1,248.1	41.0
40-47.4	1,434.6	47.2
47.5 and over	321.7	10.6
Total	3,040.9	100.0

a. Data not expanded to represent total industry.
Source: Gas Appliance Manufacturers Association. *Residential Gas Automatic Storage Water Heaters*, December 1982.

TABLE 11-6
MANUFACTURER SHIPMENTS OF GAS FURNACES, BY TYPE AND SIZE, 1982

Type	Percentage[a] of Total	Size by Btu Output	Percentage[a] of Total
Gravity	0.0	Less than 50,000	15.7
		50,000-74,999	32.6
Forced Warm Air	100.0	75,000-89,999	27.0
Up-flow	69.3	90,000-134,999	22.4
Counter Flow	11.9	135,000-179,999	2.2
Horizontal	18.8	180,000 and over	0.1
Total	100.0	Total	100.0

a. Based on shipments of 1,555,600 gas fired-forced warm air furnaces.
Source: Gas Appliance Manufacturers Association. *Gas, Oil and Electric Warm Air Furnaces*, December 1982.

TABLE 11-7
MANUFACTURER SHIPMENTS OF GAS-FIRED BOILERS, BY TYPE AND SIZE, 1982

(Percentages)

Btu Output	Steam	Hot Water	Total
Less than 50,000	a	a	a
50,000- 74,999	2.5	16.9	13.8
75,000- 99,999	18.6	26.9	25.1
100,000-124,999	25.3	25.0	25.1
125,000-149,999	14.6	9.9	10.9
150,000-199,999	12.7	8.1	9.1
200,000-249,999	8.3	5.5	6.1
250,000-449,999	9.3	4.2	5.3
450,000-949,999	5.0	2.0	2.6
950,000 and over	3.7	1.5	2.0
Total*	100.0	100.0	100.0

a. Combined with next size to avoid possible disclosure.
*Based on shipments of 31,800 steam boilers and 115,800 hot water boilers, for a total of 147,600 units.
Source: Gas Appliance Manufacturers Association. *Gas, Oil and Electric Boilers*, December 1982.

TABLE 11-8
NUMBER OF OCCUPIED HOUSING UNITS, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1974-1981

(Thousands of Occupied Units[a])

Year and Region	Total	Gas	Electricity	Oil[b]	Other[c]/None
1974					
United States	**70,831**	**39,481**	**8,412**	**16,827**	**6,111**
Northeast	16,282	5,952	709	9,215	405
North Central	18,993	13,240	1,041	3,148	1,564
South	22,489	11,069	4,584	3,567	3,268
West	13,067	9,220	2,079	897	871
1975					
United States	**72,523**	**40,933**	**9,173**	**16,299**	**6,117**
Northeast	16,508	6,446	802	8,875	386
North Central	19,393	13,666	1,154	3,027	1,546
South	23,105	11,352	4,965	3,508	3,280
West	13,518	9,469	2,253	889	907
1976					
United States	**74,005**	**41,219**	**10,151**	**16,451**	**6,184**
Northeast	16,544	6,140	846	9,161	397
North Central	19,722	13,803	1,366	3,004	1,549
South	23,742	11,449	5,498	3,488	3,307
West	13,998	9,826	2,441	798	933
1977					
United States	**75,280**	**41,543**	**11,146**	**16,060**	**6,531**
Northeast	16,637	6,151	958	9,103	425
North Central	19,855	13,893	1,506	2,843	1,613
South	24,379	11,577	6,033	3,335	3,434
West	14,407	9,922	2,649	778	1,058
1978					
United States	**77,167**	**42,522**	**12,258**	**16,071**	**6,316**
Northeast	16,952	6,301	999	9,252	400
North Central	20,171	14,140	1,685	2,817	1,529
South	25,093	11,956	6,561	3,263	3,313
West	14,951	10,125	3,013	739	1,074
1979					
United States	**78,572**	**43,323**	**13,244**	**15,708**	**6,297**
Northeast	17,122	6,558	1,109	9,056	399
North Central	20,565	14,428	1,864	2,724	1,549
South	25,584	12,054	7,074	3,191	3,265
West	15,301	10,283	3,197	737	1,084
1980					
United States	**80,072**	**44,398**	**14,208**	**14,868**	**6,598**
Northeast	17,264	6,928	1,169	8,685	482
North Central	20,842	14,688	2,036	2,503	1,615
South	26,286	12,290	7,615	3,009	3,372
West	15,680	10,492	3,388	671	1,129
1981					
United States	**83,175**	**46,084**	**15,486**	**14,494**	**7,111**
Northeast	17,851	7,335	1,281	8,642	593
North Central	21,565	15,308	2,211	2,328	1,718
South	27,431	12,725	8,225	2,905	3,576
West	16,328	10,716	3,770	619	1,223

a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal, wood and solar heat.
Note: Totals may not add due to rounding.
Source: U.S. Bureau of the Census, Current Housing Reports—Series H-150. *Annual Housing Survey.* Part A: General Housing Characteristics.

TABLE 11-9
NEW ONE-FAMILY HOUSES COMPLETED, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1974-1982

(Thousands of Units[a])

Year and Region	Total	Gas	Electricity	Oil	Other/None
1974					
United States	940	385	458	85	11
Northeast	132	38	51	42	b
North Central	220	112	79	26	3
South	397	109	266	16	5
West	191	126	63	b	b
1975					
United States	875	347	429	82	18
Northeast	114	27	37	47	3
North Central	218	107	83	20	8
South	362	105	239	14	4
West	182	107	71	b	3
1976					
United States	1,034	407	499	110	19
Northeast	121	18	38	62	4
North Central	271	130	109	26	6
South	410	120	260	22	8
West	232	139	91	b	b
1977					
United States	1,258	476	635	120	28
Northeast	135	22	42	67	5
North Central	300	138	121	30	11
South	512	139	341	23	8
West	311	176	130	b	4
1978					
United States	1,369	511	710	109	40
Northeast	141	23	48	60	11
North Central	300	149	107	32	11
South	571	153	392	16	9
West	357	186	162	b	9
1979					
United States	1,301	512	662	86	41
Northeast	135	32	47	48	7
North Central	294	162	96	22	14
South	535	147	365	14	9
West	337	170	154	b	12
1980					
United States	957	393	483	29	52
Northeast	100	35	36	18	11
North Central	170	101	47	6	16
South	455	136	303	5	11
West	232	121	97	b	14
1981					
United States	819	339	407	16	57
Northeast	87	30	34	11	12
North Central	140	87	37	b	14
South	408	128	262	b	16
West	183	94	74	b	15
1982					
United States	632	252	315	17	48
Northeast	79	28	27	14	10
North Central	92	53	24	3	13
South	340	112	214	b	13
West	121	59	50	b	12

a. Includes only privately-owned housing units.
b. Withheld because estimate did not meet Bureau of the Census publication standards.
Note: Totals may not add due to rounding.
Source: U.S. Bureau of the Census, Construction Reports—Series C25, *Characteristics of New-Housing*, 1982.

TABLE 11-10
UNITS IN NEW MULTIFAMILY BUILDINGS COMPLETED, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1974-1982[b]

(Thousands of Units[a])

Year and Region	Total	Gas	Electricity	Oil	Other/None
1974					
United States	788	279	472	30	7
Northeast	99	28	44	22	6
North Central	157	93	62	1	1
South	359	76	275	7	c
West	173	81	91	c	c
1975					
United States	442	145	260	30	7
Northeast	72	17	25	24	6
North Central	96	48	47	c	1
South	170	31	133	5	c
West	105	48	56	c	c
1976					
United States	343	113	202	24	3
Northeast	50	11	21	16	2
North Central	84	39	44	1	c
South	103	19	78	6	1
West	106	45	60	c	c
1977					
United States	399	115	261	18	4
Northeast	41	9	20	10	2
North Central	99	39	54	6	c
South	125	16	106	3	c
West	133	51	81	c	1
1978					
United States	498	131	339	24	5
Northeast	41	9	13	18	c
North Central	117	44	70	2	c
South	181	16	161	3	1
West	160	61	95	c	4
1979					
United States	570	150	386	27	6
Northeast	53	11	21	21	c
North Central	121	50	69	2	1
South	227	22	200	4	2
West	169	68	97	c	4
1980					
United States	545	165	362	12	6
Northeast	46	16	20	10	c
North Central	104	46	57	c	1
South	242	36	204	2	c
West	153	67	81	c	5
1981					
United States	447	142	293	7	4
Northeast	40	23	11	5	c
North Central	78	42	36	c	c
South	218	33	184	1	c
West	111	44	63	c	4
1982					
United States	374	103	255	9	7
Northeast	41	15	17	8	1
North Central	51	32	17	c	2
South	199	21	176	c	1
West	82	34	45	c	3

a. Includes only privately-owned housing units.
b. Totals may not add due to rounding.
c. Withheld because estimate did not meet Bureau of the Census publication standards.
Source: U.S. Bureau of the Census, Construction Reports—Series C25, *Characteristics of New-Housing*, 1982.

TABLE 11-11
NUMBER OF OCCUPIED HOUSING UNITS, BY TYPE OF COOKING FUEL AND BY CENSUS REGION, 1974-1980

(Thousands of Occupied Units[a])

Year and Region	Total	Gas	Electricity	Oil[b]	Other[c]/None
1974					
United States	**70,831**	**31,908**	**32,720**	**82**	**6,120**
Northeast	16,281	9,211	5,747	46	1,277
North Central	18,993	8,908	8,423	14	1,648
South	22,489	7,985	11,797	19	2,688
West	13,067	5,803	6,754	4	506
1975					
United States	**72,523**	**32,493**	**33,944**	**76**	**6,011**
Northeast	16,508	9,244	5,973	27	1,264
North Central	19,393	9,051	8,699	16	1,627
South	23,105	8,229	12,224	31	2,621
West	13,518	5,968	7,048	3	499
1976					
United States	**74,003**	**32,299**	**35,669**	**44**	**5,991**
Northeast	16,545	9,086	6,178	14	1,267
North Central	19,722	8,978	9,165	7	1,572
South	23,741	8,179	12,897	22	2,643
West	13,996	6,057	7,429	1	509
1977					
United States	**75,280**	**32,207**	**37,042**	**45**	**5,986**
Northeast	16,635	9,096	6,280	17	1,242
North Central	19,857	8,857	9,426	14	1,560
South	24,379	8,146	13,563	11	2,659
West	14,408	6,107	7,773	2	526
1978					
United States	**77,167**	**32,576**	**38,779**	**107**	**5,705**
Northeast	16,952	9,185	6,568	44	1,155
North Central	20,171	8,847	9,833	32	1,459
South	25,094	8,242	14,234	24	2,594
West	14,950	6,302	8,144	7	497
1979					
United States	**78,572**	**32,551**	**40,345**	**84**	**5,593**
Northeast	17,123	9,162	6,752	42	1,166
North Central	20,565	8,958	10,180	15	1,413
South	25,585	8,171	14,873	22	2,519
West	15,299	6,258	8,540	6	496
1980					
United States	**80,072**	**32,664**	**41,729**	**152**	**5,528**
Northeast	17,264	9,234	6,828	65	1,138
North Central	20,842	8,898	10,516	30	1,398
South	26,286	8,196	15,531	37	2,521
West	15,680	6,336	8,852	20	471

a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal and wood.
Note: Totals may not add due to rounding.
Sources: For 1974-1977, U.S. Bureau of the Census, Current Housing Reports—Series H-150, *Annual Housing Survey*, Part A. For 1978-1980, U.S. Bureau of the Census, Current Housing Reports—Series H-150, *Annual Housing Survey*, Part F: Energy—Related Housing Characteristics.

TABLE 11-12

NUMBER OF OCCUPIED HOUSING UNITS, BY TYPE OF FUEL USED FOR WATER HEATING AND CLOTHES DRYING, AND BY CENSUS REGION, 1970

(Thousands of Occupied Units[a])

Use and Region	Total	Gas	Electricity	Oil[b]	Other[c]/None
Water Heating					
United States	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Northeast	15,483	6,860	2,319	5,364	902
North Central	17,535	11,578	4,036	297	1,683
South	19,257	8,826	6,923	107	3,404
West	11,169	7,699	2,839	60	556
Clothes Drying					
United States	63,445	7,660	19,637	d	36,070[e]
Northeast	15,483	1,830	4,003	d	9,648[e]
North Central	17,535	2,547	5,788	d	9,201[e]
South	19,257	1,175	5,173	d	12,910[e]
West	11,169	1,298	3,754	d	6,118[e]

a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal and wood.
d. Not applicable.
e. Occupied housing units with no clothes dryers.
Source: For 1970, U.S. Bureau of the Census, Census of Housing: 1970, *Detailed Housing Characteristics*.

NUMBER OF OCCUPIED HOUSING UNITS, BY TYPE OF FUEL USED FOR WATER HEATING, AND BY CENSUS REGION, 1980

(Thousands of Occupied Units[a])

Region	Total	Gas	Electricity	Oil[b]	Other[c]/None
United States	80,390	42,148	26,882	6,463	4,897
Northeast	17,471	7,069	2,036	7,619	746
North Central	20,859	13,713	5,367	501	1,278
South	26,486	10,628	13,223	322	2,313
West	15,574	10,147	4,026	79	722

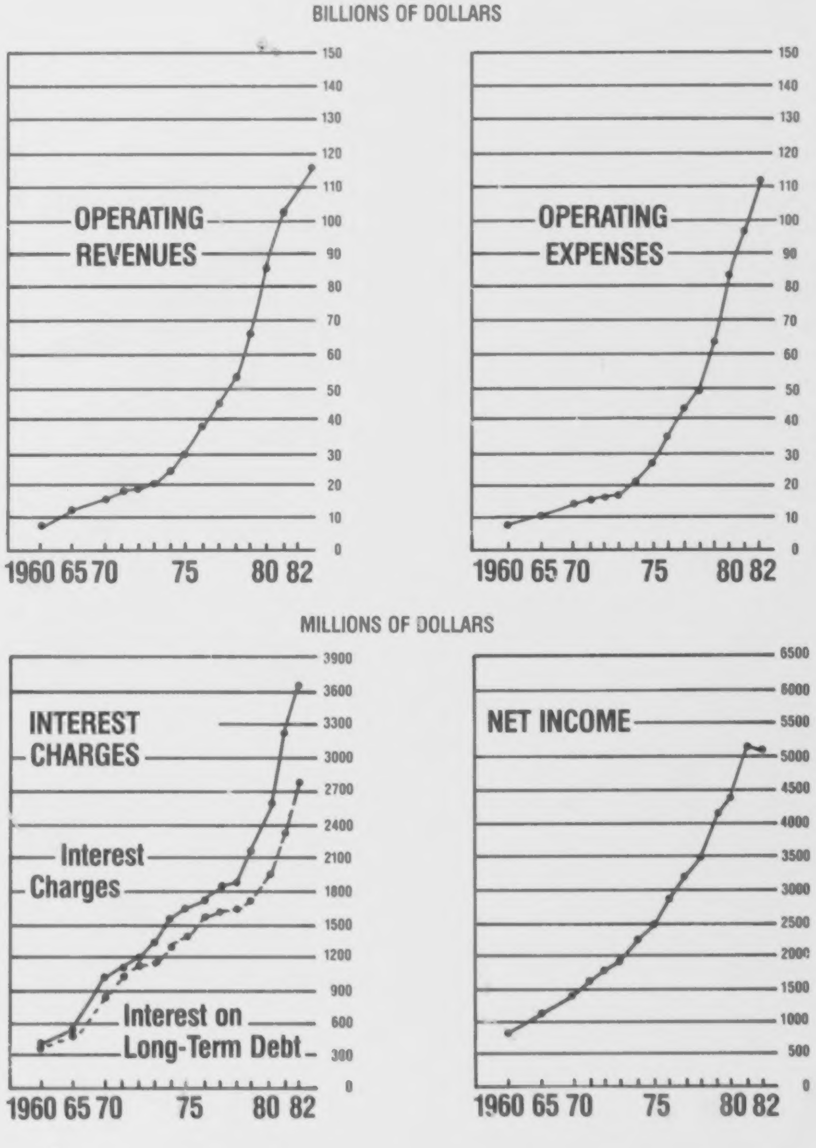
a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal and wood.
Source: U.S. Bureau of the Census, Census of Population and Housing: 1980, Summary Tape File 3C, United States.

SECTION 12
INCOME ACCOUNTS

	1982	% Change 82/81
Total Operating Revenues		
(Millions)		
Total Industry	$115,875	+14.1
Distribution	14,653	+15.1
Transmission	55,847	+11.3
Integrated	27,481	+16.4
Combination	17,894	+18.8
Net Income		
(Millions)		
Total Industry	$ 5,081	− 1.2
Distribution	373	+ 3.3
Transmission	2,829	− 7.2
Integrated	1,134	− 0.6
Combination	745	+25.0

CHART 12-1

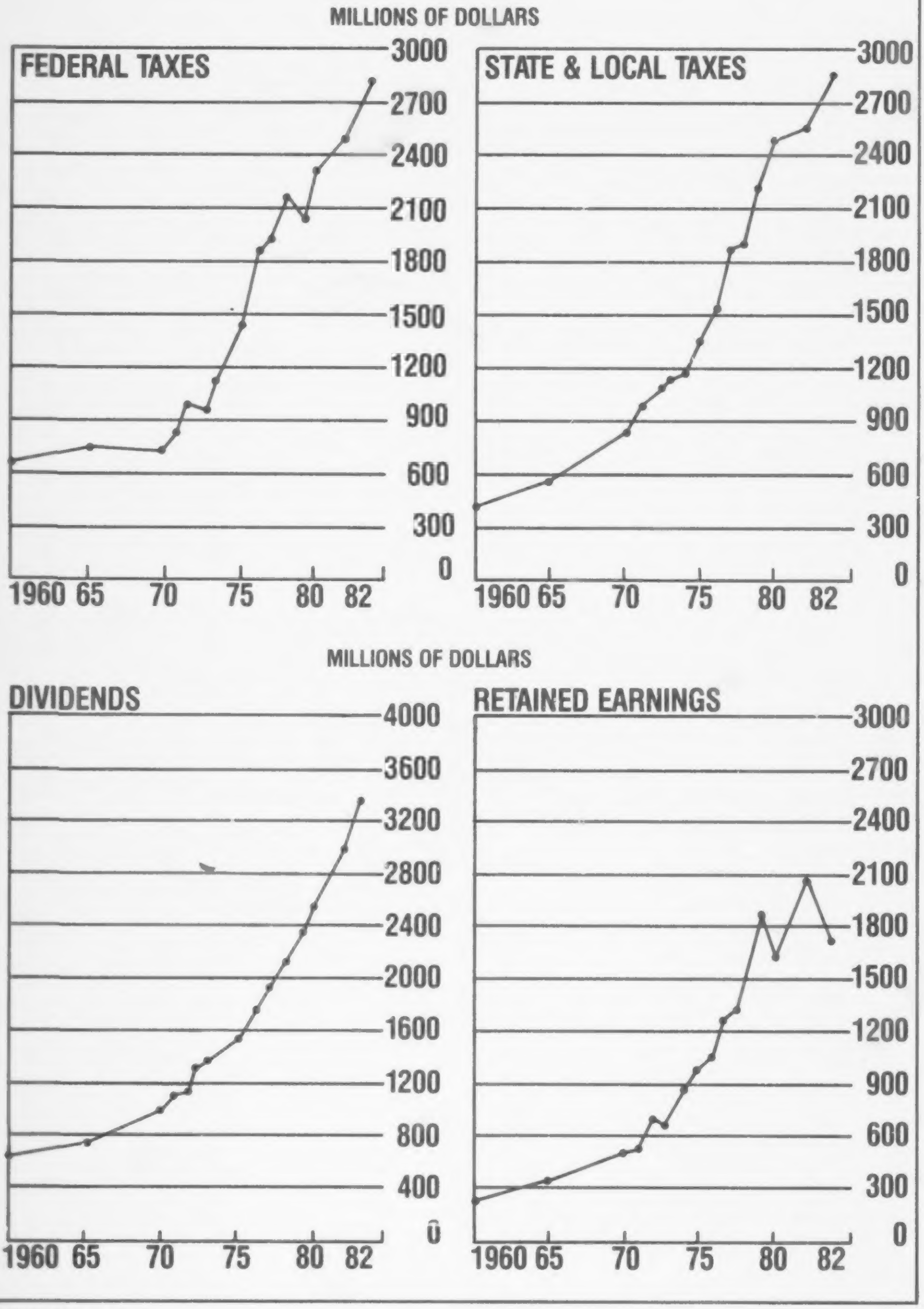
COMPOSITE INCOME ACCOUNTS GAS UTILITY INDUSTRY (INVESTOR-OWNED)



REFERENCE: TABLE 12-1

CHART 12-2

GAS UTILITY INDUSTRY DISPOSITION OF NET INCOME AND TAXES (INVESTOR-OWNED)



REFERENCE: TABLE 12-1

TABLE 12-1
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY[a] 1960-1982

(Millions)

	1960	1965	1970	1975	1980[R]	1981[R]	1982
Total Operating Revenues	$8,696	$11,525	$16,380	$30,550	$85,918	$101,593	$115,875
Operation Expenses	5,689	7,657	11,205	22,254	73,288	87,678	100,181
Maintenance Expenses	262	316	431	703	1,220	1,430	1,540
Total Operation and Maintenance Expenses	5,951	7,973	11,636	22,957	74,508	89,108	101,721
Depreciation, Retirements, Depletion, etc.	578	798	1,101	1,760	2,434	2,753	3,022
Federal Income Taxes[b]	540	633	605	965	1,369	1,097	1,146
Provision for Deferred Federal Income Taxes				465	1,949	2,212	3,284
Portion of Current Federal Income Taxes Provided For in Prior Years	79	45	34	(252)	(1,406)	(1,425)	(2,256)
Investment Tax Credit Adjustment	b	b	b	130	213	315	346
Other Federal Taxes	22	27	55	109	202	293	320
State Income Taxes	23	26	46	116	200	217	217
Other State and Local Taxes	394	561	829	1,230	2,320	2,347	2,651
Total Taxes	1,058	1,292	1,569	2,763	4,847	5,056	5,708
Total Operating Expenses	7,587	10,063	14,306	27,480	81,789	96,917	110,451
Operating Income	1,109	1,462	2,074	3,070	4,129	4,676	5,424
Other Operating Income	3	7	12	21	23	24	23
Allowance for Funds Used During Construction	25	34	73	130	319	387	385
Utility Operating Income	1,137	1,503	2,159	3,221	4,471	5,087	5,832
Other Income (Non-Operating) (Net)[c]	110	157	298	916[d]	2,458[d]	3,282[d]	2,924[d]
Income Before Interest Charges	1,247	1,660	2,457	4,137[d]	6,929[d]	8,369[d]	8,756[d]
Interest on Long-Term Debt	374	499	867	1,423	1,961	2,347	2,796
Amortization of Debt Disc. Exp. and Premium	2	5	9	12	15	14	22
Other Interest Expense (Net)	41	49	154	203	622	861	800
Total Interest Charges	417	553	1,030	1,638	2,598	3,222	3,618
Net Income Before Extraordinary Items	e	e	e	2,499[d]	4,331[d]	5,147[d]	5,138[d]
Extraordinary Items, Less Taxes	c	c	c	3	(137)	(2)	(57)
Net Income	830	1,107	1,427	2,502[d]	4,194[d]	5,145[d]	5,081[d]
Preferred Dividends	69	78	129	184	296	342	374
Common Dividends	512	703	877	1,325	2,268	2,722	2,928
Note:							
Number of Companies Reporting[f]	310	304	291	204	201	192	191
Op. Rev. of Companies Reporting (Millions)	$8,112	$10,751	$15,776	$29,057	$79,896	$ 93,173	$105,983

a. For combination companies, only gas operations e included.
b. "Investment Tax Credit Adjustment" included in 'Federal Income Taxes" prior to 1971.
c. "Extraordinary Items" included in "Other Incom (Non-Operating) (Net)" prior to 1971.
d. Not comparable with prior years due to a 1973 Fec ral Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
e. Not available.
f. Financial data of report companies expanded to represent total industry on the basis of operating revenues. As of 1971 total number of sample companies limited to companies with operating revenues over $3,000,000.
( ): Denotes negative.
R—Revised.

INCOME ACCOUNTS

TABLE 12-2
COMPOSITE INCOME ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY DISTRIBUTION COMPANIES, 1976–1982

(Millions)

	1976	1977	1978	1979	1980[R]	1981[a][R]	1982
Total Operating Revenues	$7,375	$8,705	$9,936	$11,767	$14,013	$12,726	$14,653
Operation Expenses	5,613	6,696	7,766	9,410	11,539	10,727	12,523
Maintenance Expenses	179	206	213	233	252	206	217
Total Operation and Maintenance Expenses	5,792	6,902	7,979	9,643	11,791	10,933	12,740
Depreciation, Retirements, Depletion, etc.	270	284	299	315	336	292	314
Federal Income Taxes	139	206	218	209	193	106	123
Provision for Deferred Federal Income Taxes	72	77	91	106	97	112	144
Portion of Current Federal Income Taxes Provided For in Prior Years	(28)	(26)	(19)	(30)	(42)	(34)	(69)
Investment Tax Credit Adjustment	35	35	34	32	53	41	36
Other Federal Taxes	32	35	39	45	50	46	52
State Income Taxes	16	20	25	26	33	32	33
Other State and Local Taxes	476	554	615	668	752	555	624
Total Taxes	742	901	1,001	1,056	1,136	858	943
Total Operating Expenses	6,804	8,087	9,279	11,014	13,263	12,083	13,997
Operating Income	571	618	657	753	750	643	656
Other Operating Income	2	1	2	2	3	2	2
Allowance for Funds Used During Construction	7	3	3	5	8	17	16
Utility Operating Income	580	622	662	760	761	662	674
Other Income (Non-Operating)(Net)	21	24	38	56	50	51	76
Income Before Interest Charges	601	646	700	816	811	713	750
Interest on Long-Term Debt	224	225	233	252	279	248	297
Amortization of Debt Disc. Exp. and Premium	2	2	2	2	2	2	2
Other Interest Expense (Net)	27	23	33	48	78	104	80
Total Interest Charges	253	250	267	303	359	354	379
Net Income Before Extraordinary Items	348	396	433	513	452	359	371
Extraordinary Items, Less Taxes	(4)	4	b	5	1	2	2
Net Income	344	400	433	518	453	361	373
Preferred Dividends	25	23	24	27	30	22	22
Common Dividends	217	259	273	333	330	246	257
Note:							
Number of Companies Reporting	55	53	53	51	56	52	52
Op. Rev. of Companies Reporting (Millions)	$6,773	$8,305	$9,936	$10,747	$12,959	$11,699	$13,407

a. Data not directly comparable to previous years due to reclassification of several companies.
b. Less than $500,000.
( ): Denotes negative.
R—Revised.

TABLE 12-3
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TRANSMISSION COMPANIES, 1960-1982

(Millions)

	1960	1965	1970[a]	1975	1980[R]	1981[R]	1982
Total Operating Revenues	$3,190	$4,088	$5,928	$11,898	$41,604	$50,188	$55,847
Operation Expenses	2,031	2,747	4,094	8,463	36,075	44,239	49,313
Maintenance Expenses	64	78	109	187	405	488	524
Total Operation and Maintenance Expenses	2,095	2,825	4,203	8,650	36,480	44,727	49,837
Depreciation, Retirements, Depletion, etc.	284	357	509	896	1,238	1,446	1,589
Federal Income Taxes[b]	163	212	200	646	846	645	717
Provision for Deferred Federal Income Taxes				246	1,421	1,532	2,345
Portion of Current Federal Income Taxes	56	13	(9)				
Provided For in Prior Years				(221)	(1,069)	(1,077)	(1,813)
Investment Tax Credit Adjustment	b	b	b	48	77	158	112
Other Federal Taxes	4	5	11	22	52	99	95
State Income Taxes	8	8	12	52	92	105	79
Other State and Local Taxes	88	117	162	221	572	361	360
Total Taxes	319	355	376	1,014	1,991	1,823	1,895
Total Operating Expenses	2,698	3,537	5,088	10,560	39,709	47,996	53,321
Operating Income	492	551	840	1,338	1,895	2,192	2,526
Other Operating Income	c	c	c	c	3	c	c
Allowance for Funds Used During Construction	11	18	24	38	126	158	117
Utility Operating Income	503	569	864	1,376	2,024	2,350	2,643
Other Income (Non-Operating) (Net)[d]	32	70	190	640[e]	1,755[e]	2,367	2,153
Income Before Interest Charges	535	639	1,054	2,016[e]	3,779[e]	4,717	4,796
Interest on Long-Term Debt	195	237	414	643	979	1,220	1,468
Amortization of Debt Disc. Exp. and Premium	2	4	7	7	8	7	13
Other Interest Expense (Net)	21	20	70	110	325	448	419
Total Interest Charges	218	261	491	760	1,312	1,675	1,900
Net Income Before Extraordinary Items	f	f	f	1,256[e]	2,467[e]	3,042[e]	2,896
Extraordinary Items, Less Taxes	d	d	d	0	(141)	5	(67)
Net Income	317	378	563	1,256[e]	2,326[e]	3,047[e]	2,829
Preferred Dividends	33	38	79	79	142	171	186
Common Dividends	184	258	351	600	1,229	1,540	1,591
Note:							
Number of Companies Reporting	48	47	39	33	39	32	34
Op. Rev. of Companies Reporting (Millions)	$3,092	$3,999	$5,729	$11,192	$37,971	$44,075	$50,069

a. Data not directly comparable to previous years due to reclassification of several companies.
b. "Investment Tax Credit Adjustment" included in "Federal Income Taxes" prior to 1971.
c. Less than $500,000.
d. "Extraordinary Items" included in "Other Income (Non-Operating) (Net)" prior to 1971.
e. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
f. Not available.
( ): Denotes negative.
R—Revised.

TABLE 12-4
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
INTEGRATED COMPANIES, 1976–1982

(Millions)

	1976	1977	1978	1979	1980[R]	1981[aR]	1982
Total Operating Revenues	$7,803	$9,800	$11,266	$14,439	$17,300	$23,612	$27,481
Operation Expenses	5,998	7,771	9,155	12,116	14,870	20,076	23,399
Maintenance Expenses	176	209	231	265	285	417	455
Total Operation and Maintenance Expenses	6,174	7,980	9,385	12,381	15,155	20,493	23,854
Depreciation, Retirements, Depletion, etc.	356	368	407	464	490	617	671
Federal Income Taxes	224	230	180	24	261	220	160
Provision for Deferred Federal Income Taxes	102	103	153	375	221	350	538
Portion of Current Federal Income Taxes Provided For in Prior Years	(25)	(46)	(64)	(85)	(194)	(155)	(276)
Investment Tax Credit Adjustment	31	43	49	37	47	78	125
Other Federal Taxes	31	35	40	48	53	86	103
State Income Taxes	32	33	46	56	50	60	49
Other State and Local Taxes	267	323	349	401	449	781	930
Total Taxes	662	721	752	857	887	1,420	1,629
Total Operating Expenses	7,192	9,070	10,544	13,702	16,532	22,530	26,154
Operating Income	611	730	722	737	768	1,082	1,327
Other Operating Income	14	11	9	11	17	22	21
Allowance for Funds Used During Construction	9	8	10	12	17	18	21
Utility Operating Income	634	749	741	760	802	1,122	1,369
Other Income (Non-Operating) (Net)	292	268	257	433	582	771	606
Income Before Interest Charges	926	1,017	998	1,193	1,384	1,893	1,975
Interest on Long-Term Debt	336	335	341	356	375	501	606
Amortization of Debt Disc. Exp. and Premium	2	4	3	3	3	3	4
Other Interest Expense (Net)	30	29	54	90	163	239	231
Total Interest Charges	368	368	398	449	541	743	841
Net Income Before Extraordinary Items	558	649	600	744	843	1,150	1,134
Extraordinary Items, Less Taxes	5	b	1	63	b	(9)	b
Net Income	563	649	601	807	843	1,141	1,134
Preferred Dividends	21	32	35	35	35	49	58
Common Dividends	403	353	366	392	424	618	712
Note:							
Number of Companies Reporting	46	41	43	40	45	48	46
Op. Rev. of Companies Reporting (Millions)	$7,049	$9,317	$10,261	$12,180	$16,020	$22,360	$25,015

a. Data not directly comparable to previous years due to reclassification of several companies.
b. Less than $500,000.
( ): Denotes negative.
R—Revised.

TABLE 12-5
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
COMBINATION COMPANIES, 1976–1982

(Millions)

	1976	1977	1978	1979	1980R	1981R	1982
	Gas Operations						
Total Operating Revenues	$ 7,023	$ 7,968	$ 8,804	$10,806	$13,001	$15,067	$17,894
Operation Expenses	5,223	6,179	6,871	8,737	10,804	12,636	14,946
Maintenance Expenses	204	236	231	262	278	319	344
Total Operations and Maintenance Expenses	5,427	6,415	7,102	8,998	11,082	12,955	15,290
Depreciation, Retirements, Depletion, etc.	296	313	321	346	370	398	448
Federal Income Taxes	134	85	167	167	69	126	146
Provision for Deferred Federal Income Taxes	56	130	110	121	210	218	257
Portion of Current Federal Income Taxes Provided For in Prior Years	(22)	(72)	(69)	(85)	(101)	(159)	(98)
Investment Tax Credit Adjustment	44	27	25	29	36	38	73
Other Federal Taxes	31	33	37	44	47	62	70
State Income Taxes	20	17	18	22	25	20	56
Other State and Local Taxes	406	438	453	493	547	650	737
Total Taxes	669	658	741	790	833	955	1,241
Total Operating Expenses	6,392	7,386	8,164	10,135	12,285	14,308	16,979
Operating Income[a]	631	582	641	671	716	759	915
	Total Operations						
Total Operating Revenues	$25,444	$28,781	$30,695	$36,232	$43,822	$51,085	$57,184
Operation Expenses	14,656	17,213	18,342	22,632	28,511	33,318	35,706
Maintenance Expenses	1,305	1,504	1,672	2,019	2,313	2,561	2,972
Total Operation and Maintenance Expenses	15,961	18,717	20,013	24,651	30,824	35,879	38,678
Depreciation, Retirements, Depletion, etc.	1,858	1,953	2,082	2,349	2,605	2,867	3,337
Federal Income Taxes	260	404	470	350	541	811	1,561
Provision for Deferred Federal Income Taxes	456	610	833	963	1,369	1,534	1,574
Portion of Current Federal Income Taxes Provided For in Prior Years	(116)	(256)	(379)	(334)	(749)	(915)	(1,092)
Investment Tax Credit Adjustment	474	427	430	334	305	478	910
Other Federal Taxes	125	136	152	196	228	296	335
State Income Taxes	106	107	132	140	166	199	370
Other State and Local Taxes	2,211	2,369	2,422	2,605	2,911	3,266	3,622
Total Taxes	3,516	3,797	4,061	4,253	4,771	5,669	7,280
Total Operating Expenses	21,335	24,467	26,157	31,253	38,200	44,415	49,295
Operating Income	4,109	4,314	4,538	4,979	5,622	6,670	7,889
Other Operating Income	7	8	b	b	b	1	1
Allowance for Funds Used During Construction	663	775	887	1,231	1,569	1,833	2,273
Utility Operating Income	4,779	5,097	5,425	6,209	7,191	8,504	10,163
Other Income (Non-Operating)(Net)	188	179	247	302	496	605	633
Income before Interest Charges	4,967	5,276	5,672	6,511	7,687	9,109	10,796
Interest on Long-Term Debt	1,998	2,104	2,238	2,594	3,039	3,544	4,098
Amortization of Debt Disc. Exp. and Premium	9	12	14	15	15	21	28
Other Interest Expense (Net)	102	103	119	188	453	620	574
Total Interest Charges	2,109	2,219	2,370	2,796	3,507	4,185	4,700
Net Income Before Extraordinary Items	2,858	3,057	3,302	3,715	4,180	4,924	6,096
Extraordinary Income Less Taxes	0	0	0	0	11	1	41
Net Income	2,858	3,057	3,302	3,715	4,191	4,925	6,137
Preferred Dividends	552	591	637	708	801	891	997
Common Dividends	1,492	1,630	1,828	2,183	2,575	2,957	3,566
Note:							
Number of Companies Reporting	63	60	61	58	61	60	59
Total Op. Revenues of Companies Reporting (Millions)	$24,925	$27,803	$30,370	$34,771	$43,636	$50,989	$55,901
Gas Revenues of Companies Reporting (Millions)	$ 6,880	$ 7,697	$ 8,711	$10,370	$12,946	$15,039	$17,492

a. Includes "Other Operating Income" which was less than $500,000 in each year.
b. Less than $500,000.
( ): Denotes negative.
R—Revised.

TABLE 12-6
INVESTOR-OWNED GAS UTILITY INDUSTRY GAS OPERATION AND MAINTENANCE EXPENSES BY TYPE OF COMPANY, 1981-1982

(Millions)

	1981R		1982	
Total Industry Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$78,086	$ 0	$89,624	$ 0
Other Production and Purch. Exp. and Adjustments	773	176	378	192
Production and Purchases, Total	78,859	176	90,002	192
Storage	445	82	554	85
Transmission	3,102	418	3,604	453
Distribution	1,080	704	1,195	754
Customer accounts	1,124	a	1,296	a
Sales	170	2	97	a
Administrative and General	2,700	48	3,168	56
Customer Service	198	a	265	a
Total	87,678	1,430	100,181	1,540
Distribution Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$ 9,320	$ 0	$11,075	$ 0
Other Production and Purch. Exp. and Adjustments	245	7	128	7
Production and Purchases, Total	9,565	7	11,203	7
Storage	36	5	35	5
Transmission	1	1	1	1
Distribution	317	185	338	195
Customer accounts	320	a	394	a
Sales	36	0	37	a
Administrative and General	411	8	463	9
Customer Service	41	a	52	a
Total	10,727	206	12,523	217
Transmission Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$40,212	$ 0	$44,952	$ 0
Other Production and Purch. Exp. and Adjustments	181	109	(146)	119
Production and Purchases, Total	40,393	109	44,806	119
Storage	264	34	327	36
Transmission	2,578	336	2,964	360
Distribution	9	3	26	2
Customer accounts	7	0	7	a
Sales	8	0	9	0
Administrative and General	979	6	1,170	7
Customer Service	1	0	4	0
Total	44,239	488	49,313	524
Integrated Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$17,505	$ 0	$20,520	$ 0
Other Production and Purch. Exp. and Adjustments	203	43	220	49
Production and Purchase, Total	17,708	43	20,740	49
Storage	99	32	130	32
Transmission	452	64	556	72
Distribution	394	259	426	283
Customer accounts	463	a	498	a
Sales	119	2	42	a
Administrative and General	754	17	886	19
Customer Service	87	0	121	0
Total	20,076	417	23,399	455
Combination Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$11,049	$ 0	$13,077	$ 0
Other Production and Purch. Exp. and Adjustments	144	17	176	17
Production and Purchases, Total	11,193	17	13,253	17
Storage	46	11	62	12
Transmission	71	17	83	20
Distribution	360	257	405	274
Customer accounts	334	0	397	0
Sales	7	0	9	0
Administrative and General	556	17	649	21
Customer Service	69	0	88	0
Total	12,636	319	14,946	344

a. Less than $500,000.
R—Revised.

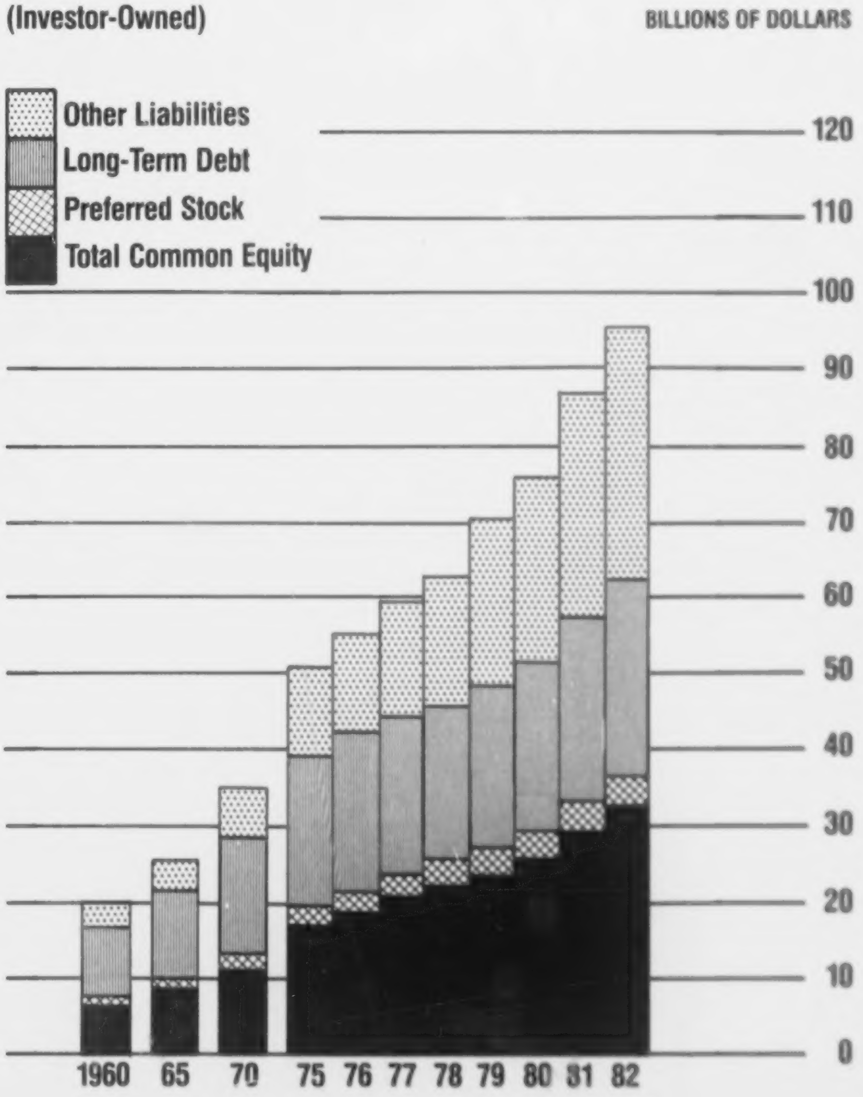
SECTION 13
BALANCE SHEETS

	1982	% Change 82/81
Gas Utility Plant		
(Millions)		
Total Industry	$78,636	+ 7.8
Distribution	9,755	+ 6.2
Transmission	35,774	+ 8.1
Integrated	19,190	+ 8.0
Combination	13,917	+ 8.3
Total Common Equity		
(Millions)		
Total Industry	$32,091	+ 9.9
Distribution	2,973	+ 8.5
Transmission	17,778	+ 9.1
Integrated	7,594	+11.1
Combination	3,746	+12.0

CHART 13-1

GAS UTILITY INDUSTRY INVESTMENT

(Investor-Owned)



REFERENCE: TABLE 13-1

BALANCE SHEETS

TABLE 10-1
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY, 1960-1982

(Millions)

	1960	1965	1970	1975	1980R	1981R	1982
ASSETS							
Total Gas Utility Plant	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Less Accum. Prov. for Depr. and Amort.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Net Gas Utility Plant (Total)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Investment and Fund Accounts	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Current and Accrued Assets	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Deferred Debits[b]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Assets	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
LIABILITIES							
Common Stock	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Retained Earnings	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other Paid-in Capital[c]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Common Equity	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Preferred Stock	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Capital Stock	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Bonds	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Debentures	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Other Long-Term Debt	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Long-Term Debt	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Capitalization	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Current and Accrued Liabilities	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Deferred Credits	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Operating Reserves	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Contributions in Aid of Construction	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Reserves for Deferred Income Taxes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Accumulated Deferred Income Taxes				[illegible]	[illegible]	[illegible]	[illegible]
Total Liabilities	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

a. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Includes "Capital Stock Discount and Expense" and "Reacquired Securities."
c. Includes accounts formerly detailed in "Premiums, Assessments, etc." and "Capital Surplus."
R—Revised.

TABLE 13-2
COMPOSITE BALANCE SHEET ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
DISTRIBUTION COMPANIES, 1976-1982

(Millions)

	1976	1977	1978	1979	1980[R]	1981[a,R]	1982
ASSETS							
Total Gas Utility Plant	$9,013	$9,153	$9,619	$10,166	$10,990	$9,188	$9,755
Less Accum. Prov. for Depr. and Amort.	2,328	2,465	2,690	2,892	3,174	2,799	3,067
Net Gas Utility Plant (Total)	6,685	6,688	6,929	7,274	7,816	6,389	6,688
Investment and Fund Accounts	241	286	356	464	459	454	523
Current and Accrued Assets	1,772	1,850	1,935	2,454	3,086	2,877	3,043
Deferred Debits	141	126	167	191	129	105	192
Total Assets	8,839	8,950	9,387	10,383	11,490	9,825	10,446
LIABILITIES							
Common Stock	1,035	1,042	1,064	1,108	1,119	837	925
Retained Earnings	1,182	1,246	1,388	1,531	1,630	1,349	1,425
Other Paid-in Capital	488	489	485	519	556	554	623
Total Common Equity	2,705	2,777	2,937	3,158	3,305	2,740	2,973
Preferred Stock	350	299	355	378	412	257	268
Total Capital Stock	3,055	3,076	3,292	3,536	3,717	2,997	3,241
Bonds	2,375	2,297	2,228	2,125	2,210	1,686	1,666
Debentures	304	145	127	121	98	126	123
Other Long-Term Debt	638	630	701	874	848	764	979
Total Long-Term Debt	3,317	3,072	3,056	3,120	3,156	2,576	2,768
Total Capitalization	6,372	6,148	6,348	6,656	6,873	5,573	6,009
Current and Accrued Liabilities	1,820	2,018	2,125	2,701	3,384	3,168	3,201
Deferred Credits	208	272	302	350	461	407	470
Operating Reserves	14	17	20	23	28	19	18
Contributions in Aid of Construction	39	44	51	54	65	57	60
Reserves for Deferred Income Taxes	144	168	338	392	427	323	318
Accumulated Deferred Income Taxes	243	283	203	207	252	278	370
Total Liabilities	8,840	8,950	9,387	10,383	11,490	9,825	10,446

a. Data not directly comparable to previous years due to reclassification of several companies.
R—Revised.

BALANCE SHEETS

TABLE 13-3
COMPOSITE BALANCE SHEET ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY TRANSMISSION COMPANIES, 1960–1982

(Millions)

	1960	1965	1970^{a}	1975	1980^{R}	1981^{R}	1982
ASSETS							
Total Gas Utility Plant	$8,960	$11,505	$16,363	$20,351	$30,334	$33,107	$35,774
Less Accum. Prov. for Depr. and Amort.	2,040	3,375	5,311	8,636	14,361	15,977	17,227
Net Gas Utility Plant (Total)	6,920	8,130	11,052	11,714	15,973	17,130	18,547
Investment and Fund Accounts	870	1,060	1,889	6,791^{b}	11,998^{b}	14,929^{b}	15,060^{b}
Current and Accrued Assets	840	950	1,384	3,459	8,432	11,217	13,153
Deferred Debits^{c}	65	100	192	516	1,371	2,055	2,280
Total Assets	8,695	10,240	14,517	22,480^{b}	37,774^{b}	45,331^{b}	49,040^{b}
LIABILITIES							
Common Stock	1,105	1,225	1,477	1,984	2,610	2,677	3,080
Retained Earnings	665	815	1,430	4,010^{b}	7,984^{b}	9,447^{b}	10,502^{b}
Other Paid-in Capital^{d}	570	770	1,233	1,891	3,414	4,166	4,196
Total Common Equity	2,340	2,810	4,140	7,885^{b}	14,008^{b}	16,290^{b}	17,778^{b}
Preferred Stock	640	715	1,019	1,012	1,734	1,880	2,054
Total Capital Stock	2,980	3,525	5,159	8,897^{b}	15,742^{b}	18,170^{b}	19,832^{b}
Bonds	3,030	3,060	3,458	3,125	2,398	1,946	1,816
Debentures	770	1,545	2,569	3,124	3,732	5,482	5,784
Other Long-Term Debt	590	420	841	2,167	4,114	4,590	5,025
Total Long-Term Debt	4,390	5,025	6,868	8,415	10,244	12,018	12,625
Total Capitalization	7,370	8,550	12,027	17,312^{b}	25,986^{b}	30,188^{b}	32,457^{b}
Current and Accrued Liabilities	1,005	1,200	1,974	3,802	9,067	11,948	12,665
Deferred Credits	10	65	147	295	495	558	1,038
Operating Reserves	65	15	14	113	174	121	113
Contributions in Aid of Construction	15	20	14	0	0	0	0
Reserves for Deferred Income Taxes	230	390	341	2	5	5	5
Accumulated Deferred Income Taxes				957	2,047	2,511	2,762
Total Liabilities	8,695	10,240	14,517	22,480^{b}	37,774^{b}	45,331^{b}	49,040^{b}

a. Data for prior years not directly comparable to later years due to reclassification of several companies.
b. Not comparable with 1970 and prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
c. Includes "Capital Stock Discount and Expense."
d. Includes accounts formerly detailed in "Premiums, Assessments, etc." and "Capital Surplus."
R—Revised.

TABLE 13-4
COMPOSITE BALANCE SHEET ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY INTEGRATED COMPANIES, 1976–1982

(Millions)

	1976	1977	1978	1979	1980^{R}	1981^{aR}	1982
ASSETS							
Total Gas Utility Plant	$11,375	$11,881	$12,659	$13,551	$13,756	$17,776	$19,190
Less Accum. Prov. for Depr. and Amort.	3,889	4,091	4,472	4,725	4,913	6,102	6,631
Net Gas Utility Plant (Total)	7,486	7,790	8,187	8,826	8,843	11,674	12,559
Investment and Fund Accounts	1,940	2,109	2,175	2,603	2,856	3,702	4,833
Current and Accrued Assets	2,034	2,223	2,623	3,558	4,456	5,127	5,975
Deferred Debits	244	228	304	384	453	517	773
Total Assets	11,704	12,350	13,289	15,370	16,608	21,020	24,140
LIABILITIES							
Common Stock	1,699	1,638	1,676	1,758	1,916	2,293	2,232
Retained Earnings	1,904	2,193	2,231	2,484	2,440	3,420	4,107
Other Paid-in Capital	606	626	818	825	906	1,120	1,255
Total Common Equity	4,209	4,457	4,726	5,067	5,262	6,833	7,594
Preferred Stock	227	330	418	448	423	606	722
Total Capital Stock	4,436	4,787	5,144	5,515	5,685	7,439	8,316
Bonds	2,072	1,887	1,714	1,667	1,605	2,247	2,331
Debentures	1,575	1,800	1,709	1,763	1,891	2,194	2,448
Other Long-Term Debt	834	708	849	1,163	1,329	1,429	1,810
Total Long-Term Debt	4,481	4,395	4,272	4,593	4,825	5,870	6,589
Total Capitalization	8,917	9,182	9,416	10,108	10,510	13,309	14,905
Current and Accrued Liabilities	1,902	2,213	2,678	3,852	4,454	5,627	6,625
Deferred Credits	228	246	328	328	381	561	785
Operating Reserves	65	91	142	146	220	104	283
Contributions in Aid of Construction	10	11	15	19	21	37	43
Reserves for Deferred Income Taxes	76	50	62	70	47	185	188
Accumulated Deferred Income Taxes	506	557	648	847	975	1,197	1,311
Total Liabilities	11,704	12,350	13,289	15,370	16,608	21,020	24,140

a. Data not directly comparable to previous years due to company reclassification.
R—Revised

BALANCE SHEETS

TABLE 13-5
COMPOSITE BALANCE SHEET ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY COMBINATION COMPANIES, 1976–1982

(Millions)

	1976	1977	1978	1979	1980^R	1981^R	1982
ASSETS							
Gas Utility Plant	$ 9,780	$10,186	$10,408	$11,340	$ 11,991	$ 12,846	$ 13,917
Less Accum. Prov. for Depr. and Amort.	2,632	2,908	3,058	3,447	3,714	4,030	4,514
Net Gas Utility Plant (Total)	7,148	7,278	7,349	7,894	8,277	8,816	9,403
Electric Utility Plant	64,382	68,666	73,616	84,564	94,579	103,460	115,923
Less Accum. Prov. for Depr. and Amort.	13,156	14,223	15,531	17,898	20,174	22,477	25,120
Net Electric Utility Plant (Total)	51,226	54,443	58,084	66,666	74,405	80,983	90,803
Other	2,299	2,260	2,401	2,770	3,614	3,950	4,415
Less Accum. Prov. for Depr. and Amort.	639	644	690	797	958	1,062	1,208
Net Other (Total)	1,660	1,616	1,711	1,974	2,656	2,888	3,207
Investment and Fund Accounts	835	1,219	1,499	1,944	1,998	2,647	3,260
Current and Accrued Assets	7,159	7,924	8,305	10,109	11,659	12,562	13,714
Deferred Debits	849	972	1,001	1,715	1,983	2,597	3,321
Total Assets	68,877	73,452	77,949	90,301	100,978	110,493	123,708
LIABILITIES							
Common Stock	9,826	9,726	10,309	12,360	13,386	13,997	16,327
Retained Earnings	7,600	8,277	8,925	9,807	10,803	11,880	13,678
Other Paid-in Capital	3,967	5,031	5,593	5,932	7,301	8,686	10,269
Total Common Equity	21,393	23,034	24,826	28,099	31,490	34,483	40,274
Preferred Stock	7,993	8,403	8,765	9,739	10,719	11,244	12,167
Total Capital Stock	29,386	31,437	33,592	37,837	42,209	45,727	52,441
Bonds	27,435	27,933	28,561	31,252	34,010	35,632	38,461
Debentures	844	743	773	1,025	990	787	823
Other Long-Term Debts	1,280	1,853	2,392	3,186	3,871	4,889	6,079
Total Long-Term Debts	29,559	30,529	31,726	35,464	38,871	41,308	45,363
Total Capitalization	58,945	61,966	65,318	73,301	81,080	87,035	97,804
Current and Accrued Liabilities	6,265	7,055	7,505	10,517	12,286	14,338	14,486
Deferred Credits	1,526	1,931	2,288	2,970	3,506	4,126	5,546
Operating Reserves	47	45	57	81	58	67	111
Contributions in Aid of Construction	57	19	20	26	38	50	53
Reserves for Deferred Income Taxes	275	535	475	529	8	4	4
Accumulated Deferred Income Taxes	1,762	1,901	2,286	2,878	4,002	4,873	5,704
Total Liabilities	68,877	73,452	77,949	90,301	100,978	110,493	123,708

R—Revised.

TABLE 13-6
TOTAL GAS UTILITY INDUSTRY PLANT, BY TYPE OF COMPANY AND BY PLANT FUNCTION, 1960-1982

(Millions)

	1960	1965	1970	1975	1980[R]	1981[R]	1982
Total Industry							
Total Gas Utility Plant	$21,525	$29,175	$39,914	$51,004	$69,275	$74,675	$80,489
Production	2,925	3,180	3,657	4,776	8,199	9,174	10,335
Underground Storage	755	1,200	1,816	2,697	4,529	4,707	5,381
Other Storage	a	a	a	700	672	722	741
LNG	c	c	c	c	284	256	330
Transmission	9,410	12,435	17,188	20,530	25,418	28,000	30,156
Distribution	7,275	10,660	15,056	19,151	24,923	26,074	27,957
General and Intangible[b]	835	1,090	1,518	2,226	3,470	4,151	4,411
Construction Work in Progress	325	610	679	924	1,780	1,591	1,178
Total Investor-Owned Industry							
Total Gas Utility Plant	$20,835	$28,205	$38,541	$49,384	$67,071	$72,917	$78,636
Production	2,835	3,055	3,529	4,687	8,019	9,017	10,167
Underground Storage	755	1,190	1,770	2,639	4,451	4,684	5,357
Other Storage	a	a	a	648	632	632	646
LNG	c	c	c	c	273	245	319
Transmission	9,405	12,425	17,170	20,307	25,298	27,964	30,115
Distribution	6,750	9,935	13,989	18,080	23,343	24,918	26,736
General and Intangible[b]	785	1,020	1,451	2,125	3,334	3,927	4,154
Construction Work in Progress	305	580	632	896	1,721	1,530	1,142
Distribution Companies							
Total Gas Utility Plant	c	c	c	$8,547	$10,990	$ 9,188	$ 9,755
Production	c	c	c	387	539	233	250
Underground Storage	c	c	c	460	627	457	466
Other Storage	c	c	c	172	140	120	118
LNG	c	c	c	c	91	14	14
Transmission	c	c	c	425	338	119	128
Distribution	c	c	c	6,452	8,569	7,580	8,048
General and Intangible[b]	c	c	c	479	599	568	657
Construction Work in Progress	c	c	c	173	87	97	74
Transmission Companies							
Total Gas Utility Plant	$8,960	$11,505	$16,363	$20,351	$30,334	$33,107	$35,774
Production	1,430	1,570	1,842	2,650	5,098	5,665	6,156
Underground Storage	280	325	668	1,299	2,340	2,406	2,954
Other Storage	a	a	a	113	175	184	176
LNG	c	c	c	c	160	165	192
Transmission	6,880	9,040	13,238	15,322	20,194	22,277	23,918
Distribution	35	5	2	5	7	0	0
General and Intangible[b]	220	260	330	587	1,204	1,518	1,723
Construction Work in Progress	115	305	283	375	1,156	892	655
Integrated Companies							
Total Gas Utility Plant	c	c	c	$10,960	$13,756	$17,776	$19,190
Production	c	c	c	1,240	1,914	2,626	3,231
Underground Storage	c	c	c	531	961	1,291	1,352
Other Storage	c	c	c	62	103	111	127
LNG	c	c	c	c	14	59	105
Transmission	c	c	c	3,418	3,308	3,897	4,148
Distribution	c	c	c	4,809	6,191	8,177	8,851
General and Intangible[b]	c	c	c	748	1,029	1,291	1,158
Construction Work in Progress	c	c	c	151	236	324	218
Combination Companies							
Total Gas Utility Plant	c	c	c	$9,526	$11,991	$12,846	$13,917
Production	c	c	c	410	468	493	530
Underground Storage	c	c	c	348	523	530	585
Other Storage	c	c	c	301	214	217	225
LNG	c	c	c	c	8	8	8
Transmission	c	c	c	1,144	1,458	1,671	1,921
Distribution	c	c	c	6,816	8,576	9,161	9,837
General and Intangible[b]	c	c	c	310	502	549	616
Construction Work in Progress	c	c	c	197	242	217	195

a. Included in "Production."
b. Includes plant acquisition adjustments and plant adjustments.
c. Not available.
R—Revised.

SECTION 14
ANALYTICAL RATIOS

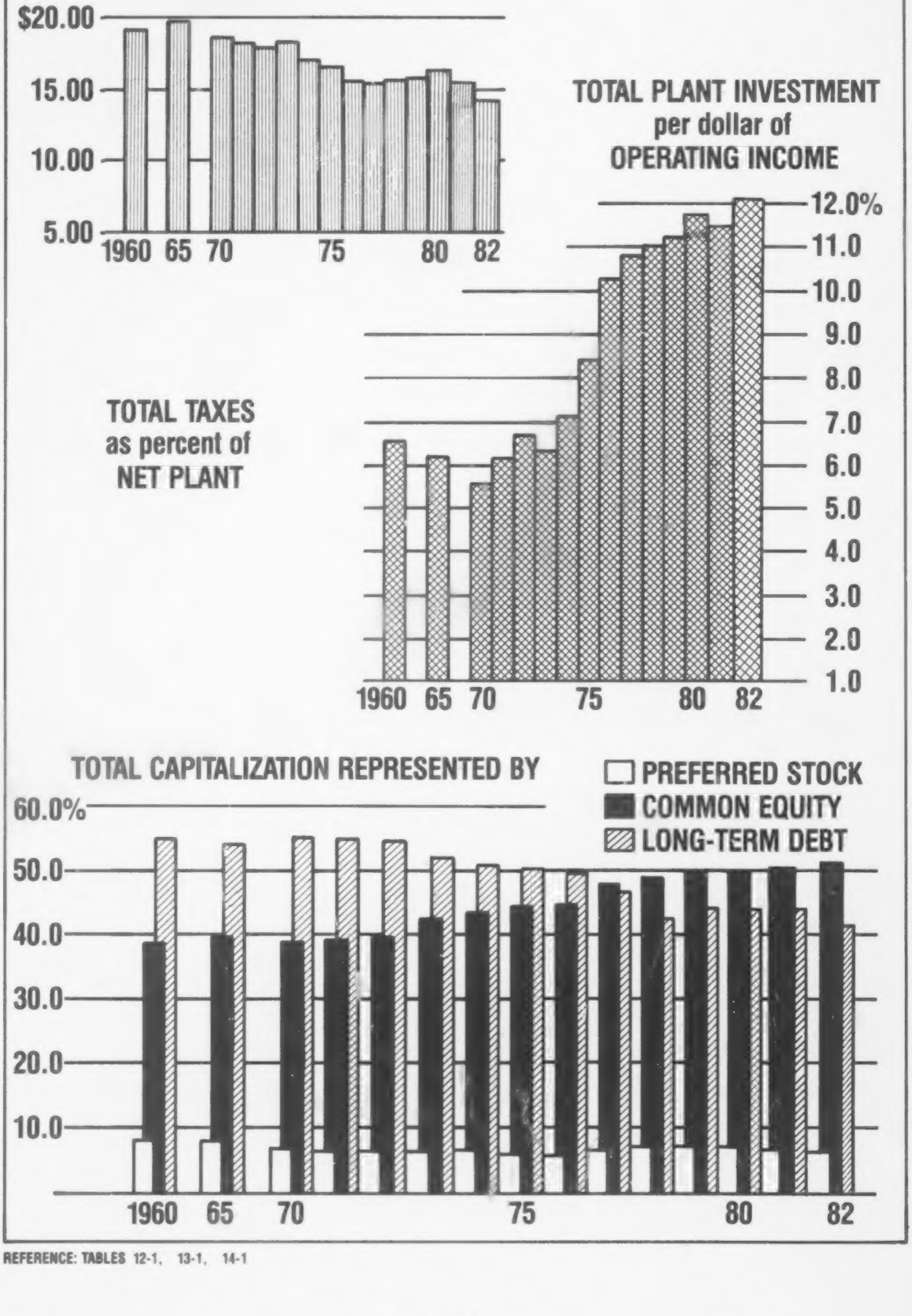
	1982	% Change 82/81
Capitalization Represented by *(%)*		
Long-term Debt	41.9	−1.4
Preferred Stock	6.7	+0.3
Common Equity	51.4	+1.2

The analytical ratios in this section have been calculated on a consistent basis for all years. These ratios are considered to be an acceptable set of indicators which provide trends on the condition of the investor-owned gas utility industry. Please contact the statistics department at A.G.A. for details of the formulas used to calculate these analytical ratios.

CHART 14-1

GAS UTILITY INDUSTRY FINANCIAL RATIOS

(INVESTOR-OWNED)



REFERENCE: TABLES 12-1, 13-1, 14-1

ANALYTICAL RATIOS

TABLE 14-1
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY, 1960-1982

	1960	1965	1970	1975	1980[R]	1981[R]	1982
Earnings							
Utility Operating Income as % of Total Plant	5.5	5.3	5.6	6.5	6.7	7.0	7.4
Utility Operating Income as % of Net Plant	7.0	7.2	7.8	9.9	10.9	11.6	12.4
Operating Revenue as % of Total Plant	41.7	40.9	42.5	61.9	128.1	139.3	147.4
Common Dividend Payout Ratio	67.3	68.3	67.6	57.2[a]	58.2[a]	56.7[a]	62.2[a]
Return on Common Equity	11.8	12.2	11.8	13.7[a]	15.2[a]	16.4[a]	14.7[a]
Return on Average Common Equity	12.2	12.5	12.2	14.3	15.8	17.5	15.4
Return on Net Plant	4.7	4.9	4.7	7.1	9.5	10.9	10.0
Pretax Coverage of:							
Total Interest Expense[d]	4.5[R]	4.2[R]	3.0[R]	3.3[R]	3.5	3.3	3.1
Long-Term Debt Interest Expense[d]	5.0[R]	4.7[R]	3.6[R]	3.8[R]	4.6	4.5	4.0
Allowance for Funds Used During Construction as % of Net Income	3.0	3.1	5.1	5.2	7.6	7.5	7.6
Expenses							
Operating Expenses as % of Operating Revenue	87.2	87.3	87.3	90.0	95.2	95.4	95.3
Maintenance Expenses as % of Total Plant	1.3	1.1	1.1	1.4	1.8	2.0	2.0
Depreciation Expenses as % of Total Plant	2.8	2.8	2.9	3.6	3.6	3.8	3.8
Depreciation Expenses as % of Depreciable Plant	b	b	b	3.6	4.1	4.0	4.0
Total Taxes as % of Total Plant	5.1	4.6	4.1	5.6	7.2	6.9	7.3
Total Taxes as % of Net Plant	6.5	6.2	5.6	8.5	11.8	11.5	12.1
Total Taxes as % of Net Income plus Total Taxes	56.0	52.4	52.5	53.9[a]	53.6[a]	49.6[a]	52.9[a]
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[c]	39.4	36.4	29.8	30.4[a]	27.4[a]	21.5[a]	22.7[a]
Plant							
Total Plant as % of Total Operating Revenue	239.6	244.7	235.3	161.6	78.1	71.8	67.9
Net Plant as % of Total Operating Revenue	187.0	182.2	170.0	106.7	47.6	43.3	40.7
Depreciation Reserve as % of Total Plant	21.9	25.5	27.8	34.0	39.0	39.6	40.0
Depreciation Reserve as % of Depreciable Plant	b	b	b	35.8	44.0	41.8	42.0
Total Plant per Employee ($000)	100.9	137.1	182.1	251.6	328.1	349.3	367.0
Capitalization							
Long-term Debt as % of Net Plant	56.1	54.8	56.3	59.4	53.9	55.6	55.5
% Total Capitalization Represented by:							
a. Long-term Debt	53.9	53.5	54.7	50.1	42.9	42.5	41.9
b. Preferred Stock	7.9	7.2	6.8	6.5	7.1	6.7	6.7
c. Common Equity	38.2	39.3	38.5	43.4	50.0	50.8	51.4
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	b	b	b	53.8	55.3	57.0	55.5
b. Equity Issues	b	b	b	11.9	11.2	12.5	9.3
c. Debt Issues	b	b	b	34.3	33.5	30.5	35.2

a. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Not available.
c. Includes "Investment Tax Credit Adjustment."
d. Changed to reflect pre-federal income tax coverage.
R—Revised

TABLE 14-2
SELECTED COMPOSITE ANALYTICAL RATIOS INVESTOR-OWNED GAS UTILITY INDUSTRY DISTRIBUTION COMPANIES, 1976-1982

	1976	1977	1978	1979	1980[R]	1981[a][R]	1982
Earnings							
Utility Operating Income as % of Total Plant	6.4	6.8	6.9	7.5	6.9	7.2	6.9
Utility Operating Income as % of Net Plant	8.7	9.2	9.6	10.4	9.7	10.4	10.1
Operating Revenue as % of Total Plant	81.8	95.1	103.3	115.7	127.5	138.5	150.2
Common Dividend Payout Ratio	68.6	68.7	66.7	67.8	78.0	72.6	73.2
Return on Common Equity	11.9	13.6	13.9	15.5	12.8	12.4	11.8
Return on Average Common Equity	11.9	13.8	14.3	16.1	13.1	12.9	12.3
Return on Net Plant	4.7	5.6	5.9	6.8	5.4	5.3	5.2
Pretax Interest Coverage of:							
Total Interest Expense[c]	3.2[R]	3.8[R]	3.8[R]	3.7[R]	3.1	2.6	2.6
Long-Term Debt Interest Expense[c]	3.7[R]	4.2[R]	4.4[R]	4.5[R]	4.0	3.8	3.3
Allowance for Funds Used During Construction as % of Net Income	2.0	0.8	0.7	1.0	1.8	4.7	4.3
Expenses							
Operating Expenses as % of Operating Revenue	92.3	92.9	93.4	93.6	94.6	94.9	95.5
Maintenance Expenses as % of Total Plant	2.0	2.3	2.2	2.3	2.3	2.2	2.2
Depreciation Expenses as % of Total Plant	2.9	3.1	3.1	3.1	3.1	3.2	3.2
Depreciation Expenses as % of Depreciable Plant	3.0	3.1	3.2	3.2	3.2	3.2	3.3
Total Taxes as % of Total Plant	8.2	9.8	10.4	10.4	10.3	9.3	9.7
Total Taxes as % of Net Plant	11.1	13.5	14.4	14.5	14.5	13.4	14.1
Total Taxes as % of Net Income plus Total Taxes	68.5	69.3	69.8	67.1	71.5	70.4	71.7
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	33.8	37.6	36.8	31.8	35.2	28.9	29.9
Plant							
Total Plant as % of Total Operating Revenue	122.2	105.1	96.8	86.4	78.4	72.2	66.6
Net Plant as % of Total Operating Revenue	90.6	76.8	69.7	61.8	55.8	50.2	45.6
Depreciation Reserve as % of Total Plant	25.8	26.9	28.0	28.5	28.9	30.5	31.4
Depreciation Reserve as % of Depreciable Plant	26.6	27.2	28.8	29.4	30.3	31.1	32.0
Total Plant per Employee ($000)	173.7	181.2	189.7	200.1	210.5	219.5	234.6
Capitalization							
Long-term Debt as % of Net Plant	49.6	49.9	44.1	42.9	40.4	40.3	41.4
% Total Capitalization Represented by:							
a. Long-term Debt	52.1	50.0	48.1	46.9	45.9	46.2	46.1
b. Preferred Stock	5.5	4.9	5.6	5.7	6.0	4.6	4.4
c. Common Equity	42.4	45.2	46.3	47.7	48.1	49.2	49.5
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	59.1	81.5	71.0	61.3	44.9	49.2	55.0
b. Equity Issues	7.2	1.1	5.3	18.1	0.5	12.8	22.6
c. Debt Issues	33.7	17.3	23.6	20.6	54.6	38.0	22.4

a. Data not directly comparable to previous years due to company reclassification.
b. Includes "Investment Tax Credit Adjustment."
c. Changed to reflect pre-federal income tax coverage.
R—Revised.

TABLE 14-3
SELECTED COMPOSITE ANALYTICAL RATIOS INVESTOR-OWNED GAS UTILITY INDUSTRY TRANSMISSION COMPANIES, 1960-1982

	1960	1965	1970[a]	1975	1980[R]	1981[R]	1982
Earnings							
Utility Operating Income as % of Total Plant	5.6	4.9	5.3	6.8	6.7	7.1	7.4
Utility Operating Income as % of Net Plant	7.3	7.0	7.8	11.7	12.7	13.7	14.3
Operating Revenue as % of Total Plant	35.6	35.5	36.2	58.5	137.2	151.6	156.1
Common Dividend Payout Ratio	64.8	75.9	72.5	50.9[b]	56.3[b]	53.5[b]	60.2[b]
Return on Common Equity	12.1	12.1	11.7	14.9[b]	15.6[b]	17.7[b]	14.9[b]
Return on Average Common Equity	12.7	12.3	12.1	15.8	16.4	18.9	15.5
Return on Net Plant	4.1	4.2	4.4	10.1	13.8	16.8	14.3
Pretax Coverage of:							
Total Interest Expense[e]	3.5[R]	3.3[R]	2.5[R]	3.6[R]	3.9	3.6	3.2
Long-Term Debt Interest Expense[e]	3.9[R]	3.6[R]	3.0[R]	4.3[R]	5.2	4.9	4.2
Allowance for Funds Used During Construction of % of Net Income	3.5	4.8	4.3	3.0	5.4	5.2	4.1
Expenses							
Operating Expenses as % of Operating Revenue	84.6	86.5	85.8	88.8	95.4	95.6	95.5
Maintenance Expenses as % of Total Plant	0.7	0.7	0.7	0.9	1.3	1.5	1.5
Depreciation Expenses as % of Total Plant	3.2	3.1	3.1	4.4	4.1	4.4	4.4
Depreciation Expenses as % of Depreciable Plant	c	c	c	4.4	4.5	4.6	4.7
Total Taxes as % of Total Plant	3.6	3.1	2.3	5.0	6.6	5.5	5.3
Total Taxes as % of Net Plant	4.6	4.4	3.4	8.6	12.5	10.6	10.2
Total Taxes as % of Net Income plus Total Taxes	50.2	48.4	40.0	44.6[b]	46.1[b]	37.4[b]	40.1[b]
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[d]	34.0	35.9	26.2	35.6[b]	28.4[b]	20.9[b]	22.7[b]
Plant							
Total Plant as % of Total Operating Revenue	280.9	281.4	276.0	171.0	72.9	66.0	64.1
Net Plant as % of Total Operating Revenue	216.9	198.9	186.4	98.5	38.4	34.1	33.2
Depreciation Reserve as % of Total Plant	22.8	29.3	32.5	42.4	47.3	48.3	48.2
Depreciation Reserve as % of Depreciable Plant	c	c	c	43.8	52.1	51.3	50.8
Total Plant per Employee ($000)	285.4	388.7	505.0	547.1	673.1	710.3	739.2
Capitalization							
Long-term Debt as % of Net Plant	63.4	61.8	62.1	71.8	64.1	70.2	68.1
% Total Capitalization Represented by:							
a. Long-term Debt	59.6	58.8	57.1	48.6	39.4	39.8	38.9
b. Preferred Stock	8.7	8.4	8.5	5.8	6.7	6.2	6.3
c. Common Equity	31.8	32.9	34.4	45.5	53.9	54.0	54.8
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	c	c	c	55.4	65.1	60.0	61.5
b. Equity Issues	c	c	c	3.7	6.0	10.7	1.7
c. Debt Issues	c	c	c	40.9	28.9	29.3	36.8

a. Data for 1970 and prior years not directly comparable to subsequent years due to reclassification of several companies.
b. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
c. Not available.
d. Includes "Investment Tax Credit Adjustment."
e. Changed to reflect pre-federal income tax coverage
R—Revised

TABLE 14-4
SELECTED COMPOSITE ANALYTICAL RATIOS INVESTOR-OWNED GAS UTILITY INDUSTRY INTEGRATED COMPANIES, 1976-1982

	1976	1977	1978	1979	1980[R]	1981[aR]	1982
Earnings							
Utility Operating Income as % of Total Plant	5.6	6.3	5.9	5.6	5.8	6.3	7.1
Utility Operating Income as % of Net Plant	8.5	9.6	9.1	8.6	9.1	9.6	10.9
Operating Revenue as % of Total Plant	71.2	82.5	89.0	106.5	125.8	132.8	143.2
Common Dividend Payout Ratio	74.4	57.2	64.7	50.8	52.5	56.6	66.2
Return on Common Equity	12.9	13.8	12.0	15.2	15.4	16.0	14.2
Return on Average Common Equity	13.2	14.2	12.3	15.8	15.6	17.0	14.9
Return on Net Plant	7.2	7.9	6.9	8.7	9.1	9.4	8.6
Pretax Coverage of:							
Total Interest Expense[c]	3.4[R]	3.7[R]	3.3[R]	3.4[R]	3.2	3.2	3.0
Long-Term Debt Interest Expense[c]	3.7[R]	4.0[R]	3.9[R]	4.3[R]	4.6	4.8	4.2
Allowance for Funds Used During Construction as % of Net Income	1.6	1.2	1.7	1.5	2.0	1.6	1.9
Expenses							
Operating Expenses as % of Operating Revenue	92.2	92.6	93.6	94.9	95.6	95.4	95.2
Maintenance Expenses as % of Total Plant	1.6	1.8	1.8	2.0	2.1	2.3	2.4
Depreciation Expenses as % of Total Plant	3.1	3.1	3.2	3.4	3.6	3.5	3.5
Depreciation Expenses as % of Depreciable Plant	3.3	3.2	3.5	3.7	4.4	3.7	3.7
Total Taxes as % of Total Plant	5.8	6.1	5.9	6.3	6.4	8.0	8.5
Total Taxes as % of Net Plant	8.9	9.3	9.2	9.7	10.0	12.2	13.0
Total Taxes as % of Net Income plus Total Taxes	54.1	52.6	55.6	51.5	51.3	55.4	59.0
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	31.2	29.6	27.6	7.0	26.8	20.7	20.1
Plant							
Total Plant as % of Total Operating Revenue	145.8	121.2	112.4	93.9	79.5	75.3	69.8
Net Plant as % of Total Operating Revenue	95.9	79.5	72.7	61.1	51.1	49.4	45.7
Depreciation Reserve as % of Total Plant	34.2	34.4	35.3	34.9	35.7	34.3	34.6
Depreciation Reserve as % of Depreciable Plant	36.5	35.0	38.2	38.1	43.8	36.8	36.8
Total Plant per Employee ($000)	209.5	211.4	223.7	239.4	249.8	255.5	265.5
Capitalization							
Long-term Debt as % of Net Plant	59.8	56.4	52.2	52.0	54.6	50.3	52.5
% Total Capitalization Represented by:							
a. Long-term Debt	50.2	47.9	45.4	45.4	45.9	44.1	44.2
b. Preferred Stock	2.6	3.6	4.4	4.4	4.0	4.6	4.8
c. Common Equity	47.2	48.5	50.2	50.1	50.1	51.3	51.0
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	45.9	66.3	63.4	74.9	62.0	64.7	48.5
b. Equity Issues	28.0	7.2	2.9	1.3	2.6	7.8	3.8
c. Debt Issues	26.1	26.5	33.7	23.8	35.4	27.5	4[illegible]7

a. Data not directly comparable to previous years due to company reclassification.
b. Includes "Investment Tax Credit Adjustment."
c. Changed to reflect pre-federal income tax coverage.
R—Revised.

ANALYTICAL RATIOS

TABLE 14-5
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
COMBINATION COMPANIES, 1976-1982

	1976	1977	1978	1979	1980^R	1981^R	1982
Gas Operations							
Earnings							
Utility Operating Income as % of Total Plant	6.5	5.7	6.2	7.1	7.4	7.4	8.2
Utility Operating Income as % of Net Plant	8.8	8.0	8.7	10.3	10.7	10.8	12.2
Operating Revenue as % of Total Plant	71.8	78.2	84.6	95.3	108.4	117.3	128.6
Common Dividend Payout Ratio	47.5	64.5	52.5	52.4	59.0	64.1	57.8
Return on Common Equity	15.6	11.8	11.6	14.4	15.5	14.8	17.0
Return on Average Common Equity	15.9	12.1	13.2	15.2	15.9	15.3	18.0
Return on Net Plant	5.6	4.4	4.1	5.4	5.8	5.6	6.8
Pretax Interest Coverage:							
Total Interest Expense[b]	3.5^R	3.0^R	3.6^R	3.4^R	3.0	2.8	3.2
Long-Term Debt Interest Expense[b]	3.7^R	3.2^R	3.8^R	3.7^R	3.6	3.4	3.8
Allowance for Funds Used During Construction as % of Net Income	16.6	14.6	20.1	20.7	29.4	32.6	31.0
Expenses							
Operating Expenses as % of Operating Revenue	91.0	92.7	92.7	93.8	94.5	95.0	94.9
Maintenance Expenses as % of Total Plant	2.1	2.3	2.2	2.3	2.3	2.5	2.5
Depreciation Expenses as % of Total Plant	3.0	3.1	3.1	3.1	3.1	3.1	3.2
Depreciation Expenses as % of Depreciable Plant	3.1	3.1	3.1	3.1	3.6	3.2	3.3
Total Taxes as % of Total Plant	6.8	6.5	7.1	7.0	6.9	7.4	8.9
Total Taxes as % of Net Plant	9.4	9.0	10.9	10.0	10.1	10.8	13.2
Total Taxes as % of Net Income plus Total Taxes	58.8	62.8	59.7	61.2	59.3	61.6	62.5
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[a]	27.5	17.8	27.7	26.9	15.5	21.6	22.7
Plant							
Total Plant as % of Total Operating Revenue	139.3	127.8	118.2	104.9	92.2	85.3	77.8
Net Plant as % of Total Operating Revenue	101.8	91.3	83.5	73.1	63.7	58.5	52.5
Depreciation Reserve as % of Total Plant	26.9	28.6	29.4	30.4	31.0	31.4	32.4
Depreciation Reserve as % of Depreciable Plant	27.9	28.9	29.9	31.0	36.3	32.6	33.7
Total Plant per Employee ($000)	193.3	200.5	212.0	215.6	230.3	253.3	267.4
All Operations							
Earnings							
Utility Operating Income as % of Total Plant	6.3	6.3	6.3	6.3	6.5	7.1	7.6
Utility Operating Income as % of Net Plant	8.0	8.0	8.1	8.1	8.4	9.2	9.8
Operating Revenue as % of Total Plant	33.3	35.5	35.5	36.7	39.8	42.5	42.6
Common Dividend Payout Ratio	64.7	66.1	68.6	72.6	76.0	73.3	69.4
Return on Common Equity	10.8	10.7	10.7	10.7	10.8	11.7	12.8
Return on Average Common Equity	10.5	11.1	11.1	11.4	11.4	12.3	13.8
Return on Net Plant	3.8	3.9	4.0	4.0	4.0	4.4	5.0
Pretax Interest Coverage:							
Total Interest Expense[b]	2.9^R	2.9^R	3.0^R	2.8^R	2.6	2.6	2.9
Long-Term Debt Interest Expense[b]	3.0^R	3.1^R	3.1^R	3.0^R	3.0	3.1	3.4
Allowance for Funds Used During Construction as % of Net Income	23.2	25.4	26.9	33.1	37.4	37.2	37.0
Expenses							
Operating Expenses as % of Operating Revenue	83.9	85.0	85.2	86.3	87.2	86.9	86.2
Maintenance Expenses as % of Total Plant	1.7	1.9	1.9	2.1	2.1	2.1	2.2
Depreciation Expenses as % of Total Plant	2.4	2.4	2.3	2.4	2.4	2.4	2.5
Depreciation Expenses as % of Depreciable Plant	3.0	3.0	3.2	3.3	3.2	3.1	3.3
Total Taxes as % of Total Plant	4.6	4.7	4.7	4.3	4.3	4.7	5.4
Total Taxes as % of Net Plant	5.9	6.0	6.0	5.6	5.6	6.1	7.0
Total Taxes as % of Net Income plus Total Taxes	55.2	55.4	55.2	53.4	53.2	53.5	54.3
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[a]	20.4	21.4	21.4	15.6	16.8	20.7	28.7
Plant							
Total Plant as % of Total Operating Revenue	300.5	281.8	281.6	272.3	251.4	235.4	234.8
Net Plant as % of Total Operating Revenue	235.9	220.1	218.7	211.2	194.7	181.4	180.8
Depreciation Reserve as % of Total Plant	21.5	21.9	22.3	22.4	22.5	22.9	23.0
Depreciation Reserve as % of Depreciable Plant	26.5	26.8	26.6	26.8	30.1	29.7	30.4
Capitalization							
Long-term Debt as % of Net Plant	49.2	48.2	47.2	46.3	45.5	44.6	43.9
% Total Capitalization represented by:							
a. Long-term Debt	50.1	49.3	48.6	48.4	48.0	47.5	46.4
b. Preferred Stock	13.6	13.6	13.4	13.3	13.2	12.9	12.4
c. Common Equity	36.3	37.2	38.0	38.3	38.8	39.6	41.2
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	48.4	57.3	50.0	24.7	32.5	41.3	49.8
b. Equity Issues	26.8	31.5	23.9	3.0	35.9	23.7	30.3
c. Debt Issues	24.8	11.2	26.1	72.3	31.6	35.0	19.9

a. Includes "Investment Tax Credit Adjustment."
b. Changed to reflect pre-federal income tax coverage.
R—Revised.

TABLE 14-6

SELECTED ANALYTICAL RATIOS RELATING TO INVESTOR-OWNED GAS UTILITY INDUSTRY OPERATING AND MAINTENANCE EXPENSES, 1970–1982[a]

	Total Operating and Maintenance Expense per Therm of Sales (cents)					Total Operating Revenue per Therm of Sales (cents)				
Type of Activity	1970	1975	1980[R]	1981[R]	1982	1970	1975	1980[R]	1981[R]	1982
Natural Gas Distribution[b]	5.85	11.53	29.37	35.05	43.21	8.46	15.12	34.82	41.20	50.28
Natural Gas Transmission	2.44	6.07	22.12	26.83	33.38	3.45	8.35	25.23	30.10	37.41

	Transmission and Distribution Expense per Mile of Pipe (dollars)					Total Cost of Purchases as Percent of Total Operating and Maintenance Expense (%)				
Type of Activity	1970	1975	1980[R]	1981[R]	1982	1970	1975	1980[R]	1981[R]	1982
Natural Gas Distribution[b]	1,423.97	1,904.73	2,666.68	2,848.70	3,066.20	69.30	77.74	85.80	86.60	87.28
Natural Gas Transmission	2,398.21	2,398.21	11,510.06	13,969.13	16,304.76	89.00	86.09	90.66	90.55	90.14

	Customer Accounts Expense Per Customer (dollars)					Total Payroll as Percent of Total Operating and Maintenance Expense (%)				
Type of Activity	1970	1975	1980[R]	1981[R]	1982	1970	1975	1980[R]	1981[R]	1982
Natural Gas Distribution[b]	8.06	13.90	22.68	24.78	29.47	19.18	14.97	9.05	8.20	7.59
Natural Gas Transmission						7.41	5.98	2.97	2.83	2.89

	Gross Sales Expense per Customer (dollars)				
Type of Activity	1970	1975	1980[R]	1981[R]	1982
Straight Natural Gas Distribution	6.56	2.90	2.94	2.94	2.98
Combination Natural Gas Distribution	4.01	1.16	0.60	0.53	0.57

a. Integrated companies excluded.
b. Includes both straight gas and combination companies.
R—Revised.

SECTION 15
SECURITY ISSUES

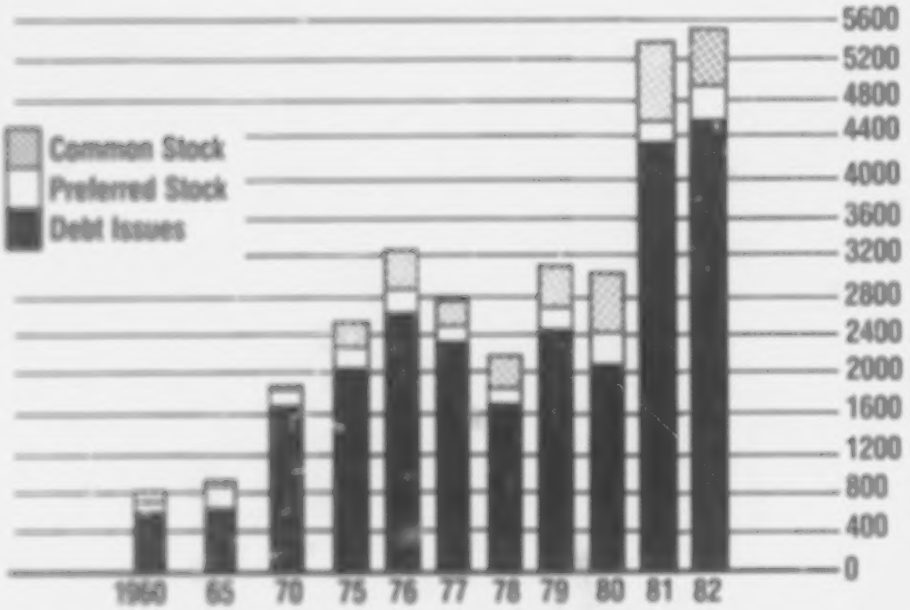
	1983	% Change 82-83
No. of Issues		
Total	523	+ 10.6
Common Stock	287	+ 16.7
Preferred Stock	32	+ 18.5
Debt Issues	204	+ 2.5
Amount		
(Thousands)		
Total	$14,766,227	+ 15.2
Common Stock	3,822,926	+ 36.1
Preferred Stock	1,073,300	+ 62.9
Debt Issues	9,888,111	+ 10.9

CHART 15-1

GAS UTILITY INDUSTRY NEW SECURITY ISSUES

DISTRIBUTION, TRANSMISSION AND INTEGRATED COMPANIES

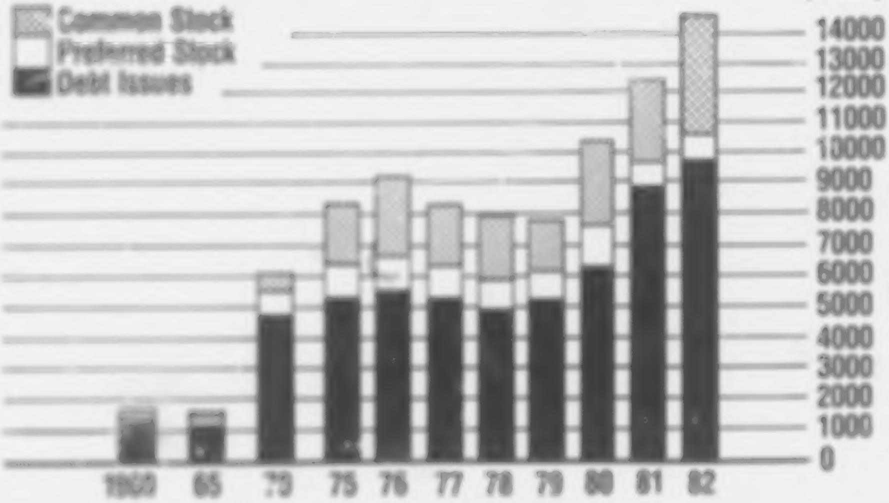
($Mil.)



ALL GAS UTILITY COMPANIES

(INCLUDES COMBINATION AND HOLDING COMPANIES)

($Mil.)



REFERENCE: TABLE 15-1, 15-4, 15-6, 15-8, 15-10, 15-12

TABLE 15-1
GAS UTILITY INDUSTRY SECURITY ISSUES OF DISTRIBUTION, TRANSMISSION, HOLDING,[a] AND COMBINATION GAS AND ELECTRIC COMPANIES
1960-1982[b]

							Debt Issues							
	Total		Common Stock		Preferred Stock		Total		Bonds		Debentures		Notes	
Year	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)
1960	193	$ 1,859,043	67	$ 240,509	19	$ 202,267	107	$1,416,267	79	$1,098,250	20	$ 276,323	8	$ 41,694
1965	176	1,728,807	60	99,444	28	324,790	88	1,304,573	61	854,010	18	410,900	9	39 663
1966	164	1,966,903	56	109,905	22	200,906	86	1,656,092	70	1,375,390	8	222,412	8	58,290
1967	187	2,930,328	50	59,205	23	265,847	114	2,605,276	82	1,997,644	21	565,274	11	42,358
1968	167	2,760,665	52	143,110	16	258,254	99	2,359,301	70	1,540,501	18	588,750	11	230,050
1969	204	3,443,576	78	457,935	18	267,762	108	2,717,879	64	1,664,945	26	758,569	18	294,365
1970	280	6,030,084	68	745,638	33	620,674	179	4,663,772	125	3,502,000	27	897,500	27	264,272
1971	330	7,012,900	96	1,283,271	47	965,439	187	4,764,190	103	3,193,366	26	927,500	58	643,324
1972	280	6,832,495	83	1,306,307	39	1,185,808	158	4,340,380	87	3,032,306	13	554,500	58	753,574
1973	286	6,302,378	96	1,408,410	39	1,073,959	151	3,820,009	82	2,466,690	6	260,000	63	1,093,319
1974	286	7,889,359	102	1,144,544	39	1,128,175	145	5,616,640	78	3,950,281	17	739,519	50	926,840
1975	353	8,312,575	141	1,973,385	42	1,059,396	170	5,279,794	101	3,661,125	19	911,571	50	707,098
1976	336	9,104,026	152	2,472,747	41	1,108,268	143	5,523,011	75	2,899,279	16	860,500	52	1,763,232
1977	336	8,244,438	167	1,864,904	40	1,106,130	129	5,273,404	70	2,956,200	10	461,500	49	1,855,704
1978	351	7,933,090	163	2,167,077	48	1,055,458	140	4,710,555	73	3,189,650	12	306,516	55	1,214,389
1979	322	7,959,649	162	1,860,954	30	773,692	130	5,325,003	69	2,908,350	11	895,000	50	1,521,653
1980	275	10,508,334	101	2,879,775	31	1,288,237	143	6,340,322	73	3,571,945	18	1,510,000	52	1,258,377
1981	472	12,384,931	246	2,816,829	27	654,940	199	8,913,162	110	5,051,554	16	1,207,500	73	2,654,108
1982	523	14,794,327	287	3,832,926	32	1,073,300	204	9,888,101	107	4,538,410	20	1,356,000	77	3,993,691

a. Holding companies used in this section are as follows: Columbia Gas Systems, Inc., Northeast Utilities, Northern States Power Company, Public Service Company of Colorado, Union Electric Company.

b. All new and refunding security issues, except sales by subsidiaries to parent companies and direct exchanges, for which data were obtainable have been included. Short term notes for less than one year are omitted. Bonds, debentures, and notes are included in principal amounts; preferred stocks at stated or liquidating values; and common stocks at offerings prices.

TABLE 15-2

GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF SECURITY ISSUES OF DISTRIBUTION, TRANSMISSION, HOLDING,[a] AND COMBINATION GAS AND ELECTRIC COMPANIES

1960-1982[b]

Year	Preferred Stock				Bonds				Debentures				Sample Amount (000)		
	Cost%		Yield%		Cost%		Yield%		Cost%		Yield%				
	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Preferred Stock	Bonds	Debentures
1960	5.61	5.51	5.50	5.45	5.22	5.03	5.17	4.98	5.22	5.09	5.14	5.03	$ 192,767	$1,017,700	$ 266,602
1965	4.71	4.78	4.69	4.76	4.77	4.74	4.75	4.71	4.84	4.87	4.81	4.82	268,200	806,460	403,700
1966	5.60	5.61	5.59	5.57	5.80	5.80	5.74	5.73	5.94	5.91	5.86	5.83	89,130	1,251,935	150,000
1967	6.15	6.18	6.10	6.11	6.17	6.18	6.11	6.10	6.43	6.43	6.32	6.35	224,370	1,882,995	507,500
1968	6.69	6.63	6.62	6.55	6.80	6.82	6.73	6.80	7.13	7.19	7.04	7.10	133,000	1,448,801	442,000
1969	8.08	8.04	7.95	7.93	7.66	7.61	8.52	8.22	8.39	8.47	8.52	8.22	226,888	1,664,945	758,569
1970	9.25	9.27	9.16	9.18	9.04	9.08	9.06	9.26	9.16	9.36	9.06	9.26	570,674	3,492,500	897,000
1971	8.16	7.98	8.05	7.87	8.06	7.90	7.97	7.81	8.16	8.14	8.07	8.05	922,312	3,098,589	912,500
1972	7.70	7.65	7.62	7.56	7.60	7.56	7.53	7.50	7.53	7.44	7.46	7.38	1,074,539	2,631,306	455,500
1973	7.72	7.61	7.66	7.54	7.98	7.93	7.91	7.87	7.80	7.77	7.73	7.71	1,051,459	2,137,890	200,000
1974	9.96	9.83	9.82	9.68	9.76	9.84	9.67	9.75	9.48	9.34	9.40	9.25	996,175	3,222,000	535,000
1975	10.87	10.89	10.55	10.53	10.10	10.06	10.00	9.97	10.28	10.31	10.17	10.20	1,028,515	3,346,050	801,000
1976	10.15	9.49	9.16	9.24	8.96	9.01	8.87	8.93	8.88	8.87	8.81	8.80	1,050,268	2,826,590	735,000
1977	8.50	8.45	8.34	8.31	8.51	8.50	8.45	8.44	8.74	8.36	8.63	8.29	973,512	2,682,500	265,000
1978	8.84	8.90	8.75	8.68	8.40	8.18	8.38	8.01	9.26	9.02	9.12	8.89	806,206	2,669,900	150,000
1979	9.05	9.32	9.03	9.23	11.14	10.55	11.12	10.48	10.81	11.12	10.65	11.04	705,500	2,348,300	645,000
1980	11.91	12.40	11.67	12.20	11.99	12.92	11.90	12.82	13.07	12.67	12.97	12.57	935,500	3,038,400	925,000
1981	13.75	14.06	13.57	13.80	15.06	16.55	14.77	16.29	16.24	16.11	15.80	15.76	630,500	3,956,154	1,207,500
1982	14.39	14.61	14.20	14.32	14.39	14.94	14.27	14.82	15.46	15.19	15.17	14.95	858,800	3,914,100	1,356,000

a. Refer to Table 15-1 for name of holding companies.

b. Includes only those preferred stocks, bonds, and debentures shown in Table 15-1 for which necessary cost and yield data were available.

Definitions: "Cost" refers to the expenses incurred by a company relative to new security issues over the life of debt issues and fixed dividends (if applicable) on preferred stocks. It includes underwriter fees, plus discount expenses less premiums.

"Yield" is the rate of return on investment by a buyer of these debt issues and fixed dividends (if applicable) expected on preferred stock. It includes underwriter fees, plus premium expenses less discounts.

TABLE 15-3
GAS UTILITY INDUSTRY LONG TERM DEBT ISSUES, BY MOODY'S BOND RATING CATEGORY, 1982

	Issues		Cost %		Yield %	
Rating	Number	Sample Amount (000)	Average	Weighted Average	Average	Weighted Average
Aaa	*	*	*	*	*	*
Aa	10	$ 573,100	13.87	14.16	13.67	14.02
A	21	1,568,050	14.09	14.37	13.92	14.23
Baa	13	1,039,200	15.58	15.86	15.43	15.71
Ba	*	*	*	*	*	*

*No issues used in this sample.

TABLE 15-4

GAS UTILITY INDUSTRY COMMON STOCK ISSUES, BY TYPE OF COMPANY

1976-1982[a]

Type of Company	1976	1977	1978	1979	1980	1981	1982
Total							
Amount (000)	$2,472,747	$1,864,904	$2,167,077	$1,860,954	$2,879,775	$2,816,829	$3,832,926
No. of Issues	152	167	163	162	101	246	287
Distribution							
Amount (000)	$71,185	$94,917	$77,052	$53,295	$277	$178,822	$69,503
No. of Issues	9	13	16	9	4	33	30
Transmission							
Amount (000)	$251,020	$107,387	$80,214	$323,125	$453,019	$565,822	$375,298
No. of Issues	13	9	13	15	7	11	10
Integrated							
Amount (000)	$63,363	$42,398	$182,100	$43,012	$156,900	$84,240	$121,926
No. of Issues	13	16	19	15	5	20	44
Combination Utilities							
Amount (000)	$1,790,464	$1,425,839	$1,701,314	$1,385,842	$2,053,120	$1,839,529	$2,984,412
No. of Issues	103	115	106	120	80	169	194
Holding[b]							
Amount (000)	$296,715	$194,363	$126,397	$55,680	$216,459	$148,416	$281,787
No. of Issues	14	14	9	3	5	13	9

a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

SECURITY ISSUES

TABLE 15-5
GAS UTILITY INDUSTRY INDEXES OF COMMON STOCK PRICES, DIVIDENDS, YIELDS, AND EARNINGS BY TYPE OF COMPANY, 1977-1982

Year	1977		1978		1979		1980		1981		1982	
Type of Company / Week	Jun 24	Dec 30	Jun 30	Dec 29	Jun 29	Dec 27	Jun 27	Dec 31	Jun 26	Dec 31	Jun 25	Dec 31
Natural Gas Industry												
a) Market Price ($ Per Share)	85.74	80.80	77.72	72.47	87.10	104.10	108.29	139.35	108.36	106.96	84.47	92.94
b) Dividend ($ Per Share)	4.73	4.96	5.08	5.43	5.56	5.97	6.18	6.45	6.70	6.91	6.89	7.14
c) Yield (Percent)	5.52	6.14	6.54	7.49	6.38	5.73	5.71	4.63	6.18	6.46	8.16	7.68
d) Earnings ($ Per Share)*	10.93	11.30	11.52	11.89	11.76	12.22	13.06	14.21	14.55	16.97	16.34	14.98
Distribution Companies												
a) Market Price ($ Per Share)	53.71	51.02	48.46	45.97	54.04	53.83	54.05	56.19	54.79	53.50	48.27	50.62
b) Dividend ($ Per Share)	3.87	3.93	4.07	4.18	4.34	4.44	4.61	4.68	4.96	5.12	5.29	5.39
c) Yield (Percent)	7.21	7.70	8.40	9.09	8.03	8.25	8.53	8.33	9.05	9.57	10.96	10.65
d) Earnings ($ Per Share)*	6.30	5.99	7.43	7.79	7.23	8.00	8.53	8.07	8.81	8.77	8.22	7.46
Transmission Companies												
a) Market Price ($ Per Share)	106.63	98.94	94.09	87.09	109.73	134.16	138.88	186.77	137.87	135.42	99.17	114.32
b) Dividend ($ Per Share)	5.28	5.64	5.74	6.25	6.40	7.00	7.20	7.59	7.85	8.29	8.56	8.90
c) Yield (Percent)	4.95	5.70	6.10	7.18	5.83	5.22	5.18	4.06	5.69	6.12	8.63	7.79
d) Earnings ($ Per Share)*	13.85	14.48	14.36	14.37	14.74	15.30	15.76	19.32	17.45	23.17	21.57	19.64

*Earnings are for twelve month periods.
Source: Moody's Investors Service, *Moody's Public Utility News Reports*.

TABLE 15-6
GAS UTILITY INDUSTRY PREFERRED STOCK ISSUES, BY TYPE OF COMPANY
1976-1982[a]

Type of Company	1976	1977	1978	1979	1980	1981	1982
Total							
Amount (000)	$1,108,268	$1,106,130	$1,055,458	$773,692	$1,288,237	$654,940	$1,073,300
No. of Issues	41	40	48	30	31	27	32
Distribution							
Amount (000)	$78,180	$57,465	$116,533	$92,575	$34,000	$21,000	$8,000
No. of Issues	5	3	8	5	3	2	1
Transmission							
Amount (000)	$152,000	$74,618	$3,000	$70,117	$259,737	$125,206	$285,000
No. of Issues	5	5	1	3	1	4	6
Integrated							
Amount (000)	$54,500	$53,250	$22,252	$33,500	$3,500	$27,000	$102,000
No. of Issues	4	4	2	2	1	1	4
Combination Utilities							
Amount (000)	$738,588	$880,797	$913,673	$577,500	$991,000	$481,734	$675,300
No. of Issues	24	27	37	20	26	20	20
Holding[b]							
Amount (000)	$85,000	$40,000	$0	$0	$0	$0	$3,000
No. of Issues	3	1	0	0	0	0	1

a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

TABLE 15-7

GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF PREFERRED STOCK ISSUES

1976-1982[a]

	1976		1977		1978		1979		1980		1981		1982	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %
Total														
Average	10.15	9.16	8.50	8.34	8.84	8.75	9.05	9.03	11.91	11.67	13.75	13.57	14.39	14.20
Weighted Average	9.49	9.24	8.45	8.31	8.90	8.68	9.32	9.23	12.40	12.20	14.06	13.80	14.61	14.32
Sample Amount (000)		$1,050,268		$973,512		$806,206		$705,500		$935,500		$630,500		$858,800
Distribution														
Average	9.88	9.50	8.70	8.51	8.63	8.54	9.34	9.30	9.26	9.08	15.98	15.65	13.00	13.00
Weighted Average	9.88	9.50	8.47	8.36	8.49	8.41	9.34	9.30	9.34	9.13	16.41	15.79	13.00	13.00
Sample Amount (000)		$20,180		$57,465		$83,533		$70,000		$34,000		$21,000		$8,000
Transmission														
Average	9.68	9.35	7.49	7.45	9.50	9.40	8.38	8.38	*	*	13.28	13.00	14.55	14.27
Weighted Average	10.02	9.65	7.49	7.45	9.50	9.40	8.43	8.43	*	*	13.92	13.60	14.63	14.28
Sample Amount (000)		$152,000		$30,000		$3,000		$70,000		$0		$125,000		$175,000
Integrated														
Average	8.92	8.79	8.69	8.55	8.70	8.62	9.50	9.50	9.50	9.50	12.25	12.25	14.00	14.00
Weighted Average	8.65	8.63	8.40	8.14	8.70	8.62	9.50	9.50	9.50	9.50	12.25	12.25	14.00	14.00
Sample Amount (000)		$54,500		$53,250		$12,000		$8,500		$3,500		$27,000		$5,000
Combination Utilities														
Average	10.56	9.17	8.47	8.31	8.52	8.45	8.99	8.93	12.38	12.12	13.67	13.45	14.45	14.26
Weighted Average	9.45	9.21	8.47	8.33	8.95	8.72	9.42	9.32	12.52	12.32	14.10	13.86	14.63	14.35
Sample Amount (000)		$738,588		$792,797		$707,673		$557,000		$898,000		$457,500		$670,800
Holding[b]														
Average	9.43	9.13	8.80	8.50	*	*	*	*	*	*	*	*	*	*
Weighted Average	9.31	9.01	8.80	8.50	*	*	*	*	*	*	*	*	*	*
Sample Amount (000)		$85,000		$40,000		$0		$0		$0		$0		$0

a. Includes only those issues in Table 15-6 for which necessary cost and yield data were available.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

*No issues used in this sample.

Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer.

TABLE 15-8
GAS UTILITY INDUSTRY BOND ISSUES, BY TYPE OF COMPANY
1976-1982[a]

Type of Company	1976	1977	1978	1979	1980	1981	1982
Total							
Amount (000)	$2,899,279	$2,956,200	$3,189,650	$2,908,350	$3,571,945	$5,051,554	$4,538,410
No. of Issues	75	70	73	69	73	110	107
Distribution							
Amount (000)	$225,965	$176,000	$503,750	$371,150	$25,545	$560,500	$135,000
No. of Issues	12	8	11	14	3	20	12
Transmission							
Amount (000)	$125,000	$75,000	$0	$167,000	$53,000	$875,000	$425,000
No. of Issues	2	3	0	3	1	5	4
Integrated							
Amount (000)	$111,000	$158,500	$188,000	$111,100	$122,500	$221,400	$150,647
No. of Issues	5	10	8	9	7	6	8
Combination Utilities							
Amount (000)	$2,364,814	$2,496,700	$2,446,400	$2,259,100	$3,160,900	$3,297,909	$3,701,163
No. of Issues	54	48	52	43	59	74	81
Holding[b]							
Amount (000)	$72,500	$50,000	$51,500	$0	$210,000	$96,745	$126,600
No. of Issues	2	1	2	0	3	5	2

a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

TABLE 15-9
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF BOND ISSUES
1976–1982[a]

	1976		1977		1978		1979		1980		1981		1982	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %
Total														
Average	8.96	8.87	8.51	8.45	8.40	8.38	11.14	11.12	11.99	11.90	15.06	14.77	14.39	14.27
Weighted Average	9.01	8.93	8.50	8.44	8.18	8.01	10.55	10.48	12.92	12.82	16.55	16.29	14.94	14.82
Sample Amount (000)		$2,826,590		$2,682,200		$2,669,900		$2,348,300		$3,038,400		$3,956,154		$3,914,100
Distribution														
Average	8.44	8.39	8.78	8.72	7.00	7.10	11.32	11.26	12.09	12.00	16.09	15.99	15.30	15.30
Weighted Average	8.93	8.87	8.62	8.54	6.67	6.61	11.10	11.42	12.09	12.00	16.68	16.58	15.81	15.81
Sample Amount (000)		$201,365		$123,000		$310,000		$224,150		$15,000		$497,500		$57,000
Transmission														
Average	9.09	9.00	*	*	*	*	10.63	10.53	*	*	16.65	16.45	13.79	13.58
Weighted Average	9.25	9.16	*	*	*	*	10.63	10.53	*	*	16.47	16.27	14.18	13.98
Sample Amount (000)		$125,000		$0		$0		$50,000		$0		$175,000		$225,000
Integrated														
Average	9.52	9.43	8.97	8.89	8.50	8.45	12.85	12.75	12.92	12.87	15.88	15.76	15.12	14.98
Weighted Average	9.28	9.19	8.86	8.79	8.96	8.88	12.85	12.75	12.30	12.23	16.05	15.91	15.39	15.23
Sample Amount (000)		$79,000		$129,000		$157,000		$70,000		$47,000		$218,000		$143,000
Combination Utilities														
Average	8.93	8.89	8.42	8.36	8.85	8.78	9.74	9.92	11.85	11.75	14.73	14.57	14.28	14.15
Weighted Average	8.99	8.92	8.47	8.41	9.19	9.12	10.40	10.29	12.93	12.83	16.55	16.37	14.95	14.83
Sample Amount (000)		$2,351,225		$2,380,200		$2,152,900		$2,004,150		$2,766,400		$2,968,909		$3,362,500
Holding[b]														
Average	9.00	8.94	8.41	8.34	9.23	9.18	*	*	13.23	13.14	13.40	13.18	14.66	14.38
Weighted Average	9.00	8.94	8.41	8.34	9.23	9.18	*	*	12.95	12.86	15.57	15.30	15.09	14.98
Sample Amount (000)		$70,000		$50,000		$50,000		$0		$210,000		$96,745		$126,600

a. Includes only those issues in Table 15-8 for which necessary cost and yield data were available.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.
*No issues used in this sample.
Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer.

TABLE 15-10

GAS UTILITY INDUSTRY DEBENTURE ISSUES, BY TYPE OF COMPANY

1976–1982[a]

Type of Company	1976	1977	1978	1979	1980	1981	1982
Total							
Amount (000)	$860,500	$461,500	$306,516	$895,000	$1,510,000	$1,207,500	$1,356,000
No. of Issues	16	10	12	11	18	16	20
Distribution							
Amount (000)	$25,000	$70,000	$0	$40,000	$0	$88,500	$0
No. of Issues	1	3	0	1	0	4	0
Transmission							
Amount (000)	$370,000	$175,000	$130,000	$450,000	$663,500	$689,000	$703,000
No. of Issues	6	1	2	4	8	7	10
Integrated							
Amount (000)	$315,500	$101,500	$106,500	$215,000	$416,500	$340,000	$308,000
No. of Issues	7	4	7	3	5	3	4
Combination Utilities							
Amount (000)	$0	$0	$70,016	$15,000	$230,000	$90,000	$245,000
No. of Issues	0	0	3	1	3	2	5
Holding[b]							
Amount (000)	$150,000	$115,000	$0	$175,000	$200,000	$0	$100,000
No. of Issues	2	2	0	2	2	0	1

a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

TABLE 15-11
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF DEBENTURE ISSUES
1976–1982[a]

	1976		1977		1978		1979		1970		1981		1982	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %
Total														
Average	8.88	8.81	8.74	8.63	9.26	9.12	10.81	10.65	13.07	12.97	16.24	15.80	15.46	15.17
Weighted Average	8.87	8.80	8.36	8.29	9.02	8.89	11.12	11.04	12.67	12.57	16.11	15.76	15.19	14.95
Sample Amount (000)		$735,000		$265,000		$150,000		$645,000		$925,000		$1,207,500		$1,356,000
Distribution														
Average	*	*	7.36	7.28	*	*	9.93	9.88	*	*	16.22	15.81	*	*
Weighted Average	*	*	7.36	7.28	*	*	9.93	9.88	*	*	17.20	16.85	*	*
Sample Amount (000)		$0		$50,000		$0		$40,000		$0		$88,500		$0
Transmission														
Average	8.92	8.84	*	*	*	*	11.31	11.22	13.89	13.81	16.65	16.24	15.85	15.66
Weighted Average	8.88	8.79	*	*	*	*	11.40	11.30	14.10	14.02	16.49	16.09	15.46	15.26
Sample Amount (000)		$270,000		$0		$0		$209,000		$175,000		$689,000		$703,000
Integrated														
Average	8.87	8.79	9.39	9.24	9.69	9.55	10.75	10.68	11.65	11.56	14.80	14.43	13.96	13.64
Weighted Average	8.88	8.80	8.87	8.77	9.21	9.11	10.98	10.94	11.17	11.09	14.86	14.69	13.85	13.63
Sample Amount (000)		$315,000		$100,000		$80,000		$215,000		$400,000		$340,000		$308,000
Combination Utilities														
Average	*	*	*	*	8.83	8.68	10.92	10.38	14.54	14.39	17.02	16.33	15.85	15.37
Weighted Average	*	*	*	*	8.81	8.64	10.92	10.38	14.64	14.48	16.78	16.22	15.95	15.53
Sample Amount (000)		$0		$0		$70,000		$15,000		$150,000		$90,000		$245,000
Holding[b]														
Average	8.84	8.79	8.44	8.38	*	*	11.16	11.08	12.93	12.84	*	*	15.57	15.57
Weighted Average	8.84	8.79	8.36	8.31	*	*	11.27	11.18	12.93	12.84	*	*	15.46	15.46
Sample Amount (000)		$150,000		$115,000		$0		$175,000		$200,000		$0		$100,000

a. Includes only those issues in Table 15-10 for which necessary cost and yield data were available.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

*No issues used in this sample.

Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer.

TABLE 15-12
GAS UTILITY INDUSTRY NOTE ISSUES, BY TYPE OF COMPANY
1976-1982[a]

Type of Company	1976	1977	1978	1979	1980	1981	1982
Total							
Amount (000)	$1,763,232	$1,855,708	$1,214,089	$1,721,653	$1,206,177	$2,654,108	$3,885,693
No. of Issues	52	50	55	50	52	75	66
Distribution							
Amount (000)	$34,400	$43,580	$97,854	$140,500	$172,900	$123,120	$588,510
No. of Issues	3	8	6	6	4	10	8
Transmission							
Amount (000)	$1,320,119	$863,668	$468,150	$600,066	$455,768	$1,206,550	$1,073,000
No. of Issues	20	15	12	7	16	21	10
Integrated							
Amount (000)	$101,073	$682,500	$215,441	$310,770	$226,171	$281,478	$667,675
No. of Issues	11	9	17	14	9	7	12
Combination Utilities							
Amount (000)	$252,357	$254,774	$402,775	$596,317	$365,142	$978,452	$1,128,203
No. of Issues	14	16	21	23	22	33	36
Holding[b]							
Amount (000)	$55,296	$11,311	$109	$0	$27,000	$62,000	$0
No. of Issues	4	2	1	0	1	1	0

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a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

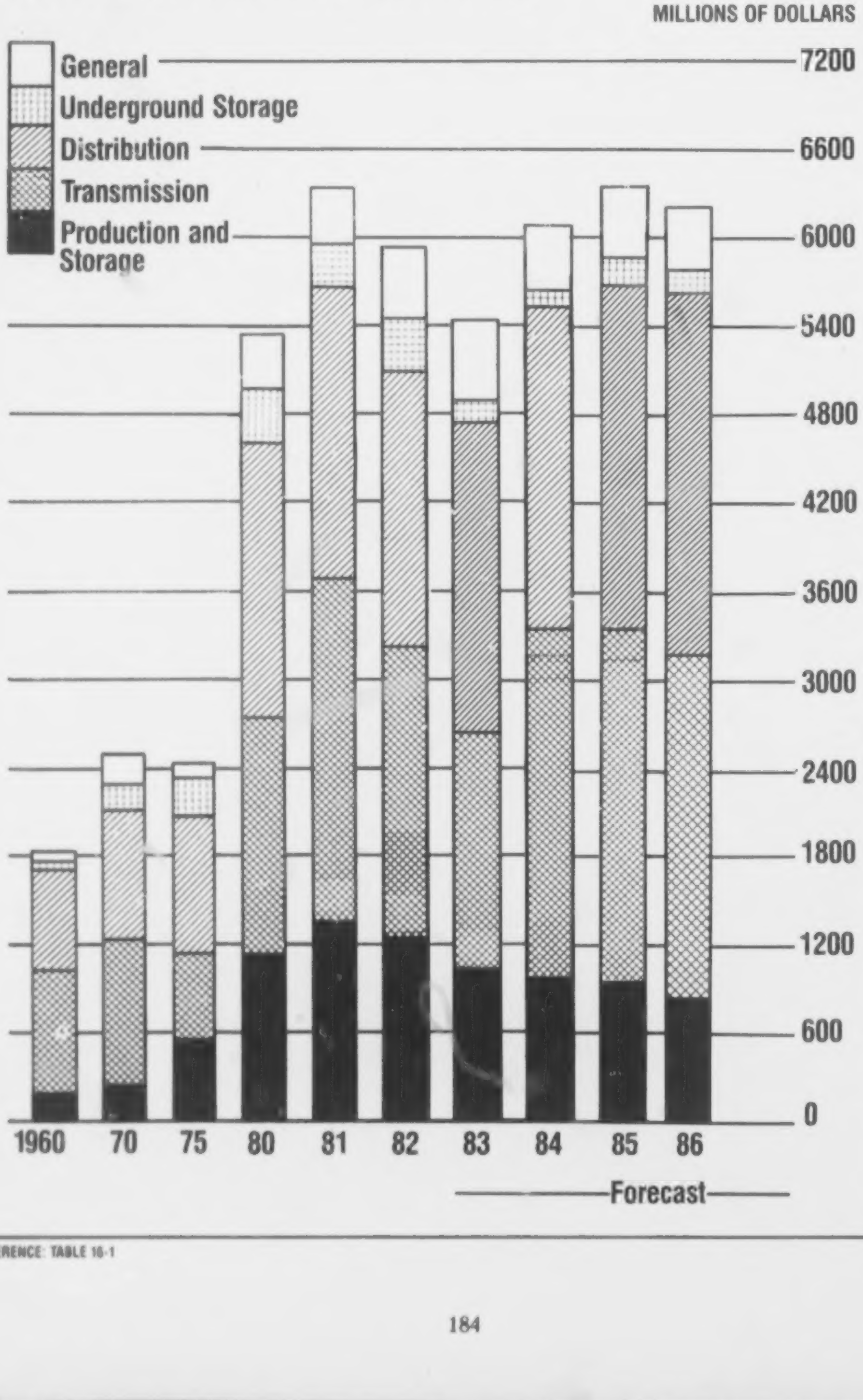
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

SECTION 16
CONSTRUCTION EXPENDITURES

	1982	% Change 82/81
Construction Expenditures		
(Millions)		
Total	$5,839	− 7.0
Production & Storage	1,222	− 1.8
Transmission	1,921	−10.1
Underground Storage	368	+122.9
Distribution	1,881	− 5.8
General	447	+ 8.0

CHART 16-1

GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES



REFERENCE: TABLE 16-1

CONSTRUCTION EXPENDITURES

TABLE 16-1
GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES, BY TYPE OF FACILITY, 1960-1986*

(Millions)

Year	Total	Production and Storage	Transmission	Underground Storage	Distribution	General
1960	$1,845	$ 157	$ 848	$ 59	$ 696	$ 85
1961	1,662	172	654	55	687	94
1962	1,673	177	613	53	708	122
1963	1,558	138	461	106	752	101
1964	1,701	120	616	84	784	97
1965	1,935	156	770	69	824	116
1966	2,374	182	1,038	151	869	134
1967	2,252	186	1,006	91	848	121
1968	2,972	259	1,577	88	913	135
1969	2,686	83	1,511	128	863	101
1970	2,507	203	1,019	167	913	205
1971	2,419	340	842	171	888	178
1972	2,822	717	678	177	1,081	169
1973	2,966	771	746	201	1,094	155
1974	2,965	830	632	230	1,097	176
1975	2,466	555	590	276	910	136
1976	2,425	466	531	362	926	140
1977	2,833	620	670	323	1,048	172
1978	3,581	881	935	321	1,228	215
1979	4,366	1,125	1,226	281	1,448	286
1980	5,350	1,150	1,583	396	1,869	352
1981	6,389	1,346	2,352	326	1,955	410
1982	5,939	1,322	1,921	368	1,881	447
1983 (forecast)	5,437	1,094	1,587	138	2,098	520
1984 (forecast)	6,094	1,066	2,303	130	2,158	437
1985 (forecast)	6,324	1,036	2,333	222	2,308	425
1986 (forecast)	6,208	866	2,326	150	2,447	419

*For companies not reporting 1985 and 1986 forecasts, data extrapolated from earlier years.

TABLE 16-2
GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES, BY TYPE OF FACILITY, 1977-1982

	1977	1978	1979	1980	1981	1982
Production and Storage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SNG Plant	2.1	8.6	0.6	3.1	2.3	3.6
LNG Plant	a	a	a	0.1	0.1	a
Propane Plant	1.5	0.8	2.2	2.3	3.0	3.8
Exploration and Drilling	28.2	21.8	29.1	18.2	18.7	21.3
Other[b]	55.7	62.1	64.1	72.3	71.1	66.1
LNG Storage	11.9	4.1	2.6	1.3	0.2	1.8
Other Storage	0.6	2.6	1.4	2.6	4.6	3.4
LNG Ships	a	a	0.0	0.0	0.0	0.0
Transmission	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New and Replacement Pipe	74.2	77.6	68.7	70.4	79.6	77.3
Compressor Stations	21.6	16.4	26.0	20.1	13.8	18.8
Other	4.2	6.0	5.2	9.6	6.6	3.9
Distribution	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New and Replacement Pipe	80.3	88.1	88.7	86.2	85.8	85.8
Compressor Stations	5.2	a	1.4	4.1	4.5	3.9
Other	14.5	11.9	9.9	9.7	9.7	10.3

a. Less than 0.1 percent.

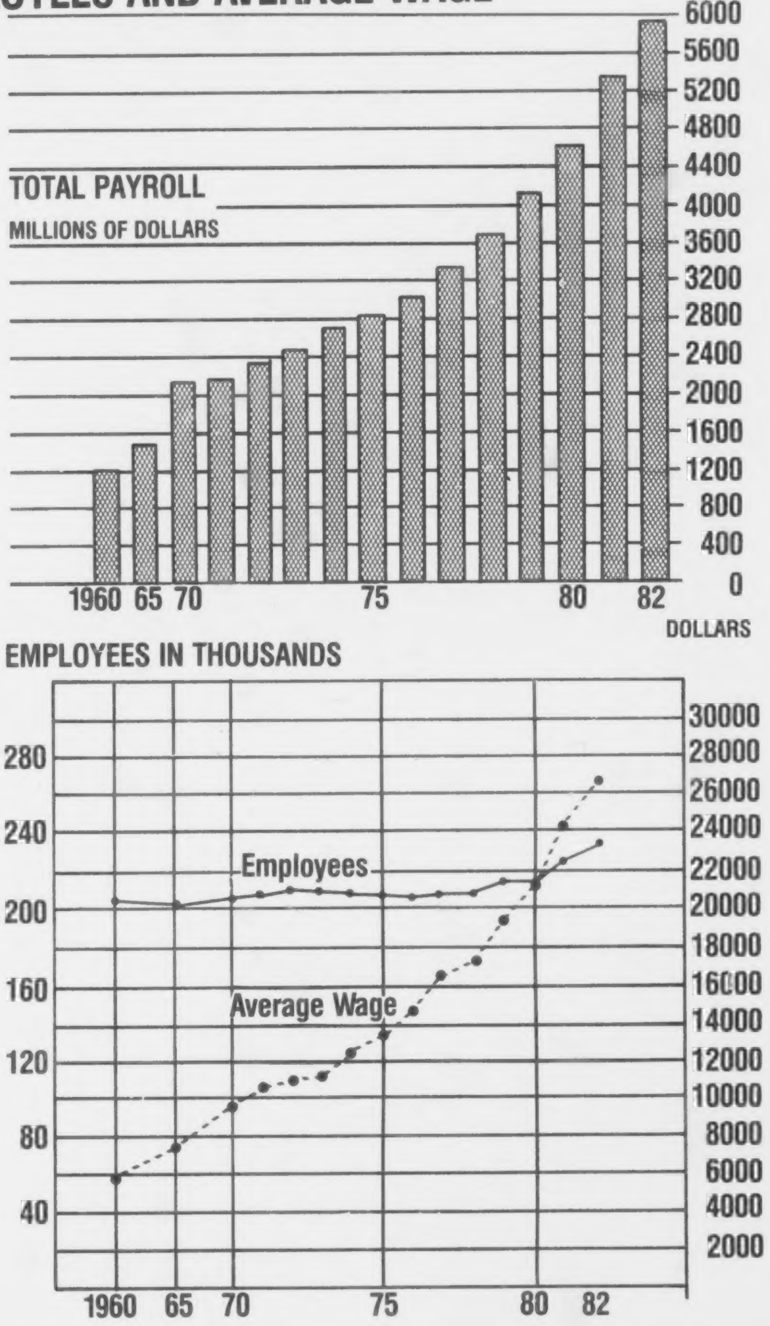
b. Includes gathering.

SECTION 17
PERSONNEL DATA

	1982	% Change 82/81
Gas Utility Employees		
(Thousands)		
Total	226.4	+ 2.5
Distribution	41.6	− 0.6
Transmission	48.4	+ 3.8
Integrated	72.3	+ 3.9
Combination	52.0	+ 2.6
Municipals	12.1	+ 0.0

CHART 17-1

GAS UTILITY INDUSTRY PAYROLL, EMPLOYEES AND AVERAGE WAGE



REFERENCE: TABLE 17-1

PERSONNEL DATA

TABLE 17-1
GAS UTILITY INDUSTRY EMPLOYEES AND PAYROLL, 1960–1982

Year	Average Number of Employees (Thousands)	Total Payroll (Thousands)	Average Wage per Employee
1960	206.4	$1,214,565	$ 5,880
1961	206.1	1,268,437	6,150
1962	204.4	1,316,057	6,440
1963	204.5	1,377,729	6,740
1964	204.8	1,420,754	6,940
1965	205.7	1,480,397	7,200
1966	207.4	1,556,577	7,500
1967	207.2	1,640,397	7,920
1968	208.6	1,759,784	8,440
1969	210.2	1,890,490	8,990
1970	211.7	2,021,197	9,550
1971	213.7	2,142,892	10,028
1972	215.4	2,321,932	10,780
1973	215.2	2,449,075	11,381
1974	213.4	2,606,903	12,216
1975	207.6	2,817,150	13,570
1976	205.1	3,044,605	14,844
1977	208.8	3,371,856	16,149
1978	209.8	3,647,057	17,383
1979	214.6	4,134,270	19,265
1980	215.4	4,612,791	21,415
1981R	220.9	5,313,445	24,057
1982	226.4	5,963,591	26,340

R—Revised.

TABLE 17-2
GAS UTILITY INDUSTRY EMPLOYEES AND PAYROLL BY TYPE OF PAYROLL AND TYPE OF COMPANY, 1960-1982

(Thousands)

	1960	1965	1970	1975	1980	1981[R]	1982
Total							
Employees	206.4	205.7	211.7	207.6	215.4	220.9	226.4
Payroll—Total	$1,214,565	$1,480,397	$2,021,197	$2,817,150	$4,612,791	$5,313,445	$5,963,591
Operating	914,438	1,146,226	1,606,321	2,292,448	3,652,941	4,147,078	4,708,363
Construction	209,082	262,792	325,546	380,835	627,706	775,949	800,108
Miscellaneous	62,045	71,379	89,330	143,867	332,144	390,418	455,120
Investor Owned—Total							
Employees	*	*	*	196.3	202.7	208.7	214.3
Payroll—Total	*	*	*	$2,675,092	$4,379,653	$5,061,936	$5,691,499
Operating	*	*	*	2,184,446	3,463,437	3,939,702	4,470,662
Construction	*	*	*	357,221	594,326	741,381	774,884
Miscellaneous	*	*	*	133,425	321,890	380,853	445,953
Distribution							
Employees	*	*	*	51.3	52.1	41.8[a]	41.6
Payroll—Total	*	*	*	$697,552	$1,040,436	$ 879,111	$ 954,386
Operating	*	*	*	567,947	831,076	713,360	785,823
Construction	*	*	*	98,257	152,964	132,745	134,095
Miscellaneous	*	*	*	31,348	56,396	33,006	34,468
Transmission							
Employees	31.4	29.6	32.4	37.2	45.2	46.6	48.4
Payroll—Total	$199,701	$228,493	$331,955	$574,275	$1,178,706	$1,357,772	$1,543,492
Operating	166,064	187,521	266,685	470,418	873,199	1,011,345	1,167,527
Construction	21,955	30,650	44,869	53,832	108,974	131,510	133,572
Miscellaneous	11,682	10,322	20,401	50,025	196,533	214,917	242,393
Integrated							
Employees	*	*	*	55.4	53.2	69.6[a]	72.3
Payroll—Total	*	*	*	$676,967	$1,061,520	$1,527,379	$1,723,920
Operating	*	*	*	548,291	873,837	1,234,024	1,378,669
Construction	*	*	*	91,439	138,062	181,893	200,142
Miscellaneous	*	*	*	37,237	49,621	111,462	145,109
Combination							
Employees	*	*	*	52.4	52.2	50.7	52.0
Payroll—Total	*	*	*	$726,298	$1,098,991	$1.297,674	$1,469,701
Operating	*	*	*	597,790	885,325	980,973	1,138,643
Construction	*	*	*	113,693	194,326	295,233	307,075
Miscellaneous	*	*	*	14,815	19,340	21,468	23,983

a. Data not directly comparable to previous years due to reclassification of several companies.
R—Revised.
*Not available.

PERSONNEL DATA

TABLE 17-3
EMPLOYEE ACCIDENT INCIDENT AND SEVERITY RATES OF SELECTED INDUSTRIES, 1981[a]

	Rate	
	Incident	Severity
Gas Utilities[b]	**2.66**	**16.54**
All Industries	**2.21**	**18.10**
Agricultural Chemicals	1.14	19.30
Aircraft	.75	17.33
Air Transportation	3.95	13.92
Bituminous Coal	2.27	43.61
Cement	1.75	25.14
Chemical	.74	21.62
Communications	.81	14.81
Construction	3.37	18.69
Electric, Electronic Equipment	1.08	20.37
Electric Service	1.85	20.54
Fabricated Metal Products	2.89	15.92
Food	4.08	18.63
Furniture and Fixtures	2.56	14.84
General Government	6.59	13.05
Iron and Steel Foundries	4.08	17.89
Leather	2.99	12.71
Lumber and Wood Products	5.10	25.88
Machinery, excluding Electrical	2.05	16.10
Meat Products	7.05	14.75
Metal Mining	3.08	28.57
Motor Vehicles	1.32	17.42
Nonferrous Rolling, Drawing	2.31	31.17
Nonmetallic Minerals	3.17	29.02
Oil and Gas Extraction	1.16	25.86
Paper	2.96	25.34
Petroleum and Coal Products	1.18	22.03
Pipeline Transportation	.91	24.18
Primary Nonferrous Metals	1.28	33.59
Printing and Publishing	2.93	18.09
Railroad Equipment	4.44	31.98
Railroad Transportation	4.60	20.00
Rubber and Plastics	1.68	18.45
Services	3.03	12.54
Ship and Boat Building	6.15	13.98
Steel	1.68	32.74
Stone, Clay and Glass	3.84	20.57
Textile	.96	28.13
Transit	7.34	12.26
Trucking	12.97	11.87
Water Transportation	2.36	48.73
Wholesale and Retail Trade	2.18	16.51

a. Incident rate is the number of disabling injuries per 100 full-time employees. Severity rate is average lost workdays per injury.
b. Gas figures derived from National Safety Council data.
Source: National Safety Council, *Work Injury and Illness Rates*, 1982.

TABLE 17-4
DEATH RATES OF WORKERS, BY MAJOR INDUSTRIES, 1981

	Deaths	
	Total	Per 100,000 Workers
All Industries	**12,300**	12
Agriculture	1,900	54
Construction	2,200	40
Government	1,600	10
Manufacturing	1,400	7
Mining, Quarrying, Oil and Gas Wells	600	55
Service	1,700	7
Trade	1,200	5
Transportation and Public Utilities	1,700	31
Gas*	23	8

*Included in Transportation and Public Utilities. Data derived from A.G.A. *Report of Occupational Injuries and Illnesses in the Gas Utility and Transmission Industry in the United States*, and does not represent total industry.
Source: National Safety Council; *Accident Facts*, 1982; gas figures derived from A.G.A. data.

TABLE 17-5

EMPLOYEE DISABLING INJURY RATES, BY TYPE OF GAS UTILITY, 1960–1982

Z16.1 DATA

	All Reporting Gas Utilities				Natural Gas Distribution and Integrated Companies		Natural Gas Transmission Companies		Natural Gas Combination Companies[a]	
	Reporting Companies		Rate[b]		Rate		Rate		Rate	
Year	Number	Average Employees	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]
1960	554	195,591	7.01	563	7.45	616	5.83	332	e	e
1961	581	192,287	6.57	481	6.73	396	5.85	868	e	e
1962	579	194,615	6.41	490	6.69	467	5.81	630	e	e
1963	581	196,376	6.27	546	6.47	439	5.37	1.020	e	e
1964	600	197,023	5.87	465	5.96	416	5.17	644	e	e
1965	625	198,815	5.69	402	5.93	314	4.34	753	e	e
1966	674	200,600	5.85	623	6.10	451	4.55	1,382	e	e
1967	642	202,427	5.69	454	6.07	376	4.32	814	e	e
1968	652	199,442	6.06	533	6.48	478	4.25	799	e	e
1969	703	204,771	6.16	525	6.54	500	4.37	589	e	e
1970	719	200,493	6.34	548	6.66	522	5.02	686	e	e
1971	833	210,589	7.15	473	7.48	444	5.70	634	e	e
1972	736	205,371	8.38	535	8.98	495	5.88	762	e	e
1973	708	207,423	8.18	547	8.77[f]	373[f]	5.67	1,287	e	e
1974	644	208,283	9.08	357	9.75[g]	362[g]	6.12	333	e	e
1975	515	193,957	9.27	570	9.99[g]	518[g]	6.37	785	e	e
1976	407	153,538	11.17	365	12.87[g]	403[g]	5.31	236	e	e

OSHA DATA

	All Reporting Gas Utilities				Natural Gas Distribution and Integrated Companies		Natural Gas Transmission Companies		Natural Gas Combination Companies	
	Reporting Companies		Rate		Rate		Rate		Rate	
Year	Number	Average Employees	Incident[h]	Severity[i]	Incident[h]	Severity[i]	Incident[h]	Severity[i]	Incident[h]	Severity[i]
1976	411	223,240	2.38	20.00	3.27	18.78	1.08	39.24	1.96	19.63
1977	433	243,773	2.46	18.01	3.31	15.86	1.09	20.63	2.00	20.54
1978	423	236,661	2.46	17.11	3.41	14.86	1.10	22.51	2.10	18.90
1979	443	256,797	2.52	16.76	3.57	15.01	1.16	24.71	1.97	17.81
1980	453	262,173	2.62	18.20	3.45	14.28	1.15	32.17	2.26	21.34
1981	437	278,402	2.52	25.09	3.43	17.08	1.09	26.34	2.17	37.53
1982	424	275,725	2.33	18.36	3.39	13.63	1.15	23.10	1.90	24.30

a. Included in "Natural Gas Distribution" and "Integrated Companies" under Z16.1 data.
b. Includes "Manufactured and Mixed Gas" and "Liquefied Petroleum Gas."
c. Frequency Rate is number of disabling injuries per million man-hours worked for each injury resulting in a minimum of one day's loss of time.
d. Severity Rate is number of days lost due to disabling injuries, per million man-hours worked.
e. Not available under Z16.1 data.
f. Includes "Manufactured and Mixed Gas."
g. Includes "Manufactured and Mixed Gas" and "Liquefied Petroleum Gas."
h. Incident Rate is total injuries per 100 full-time employees.
i. Severity Rate is average lost workdays per injury.
NOTE: Companies are now required to report under the Occupational Safety and Health Act (OSHA) instead of ANST Standard Z16.1.
Source: A.G.A. ***Disabling Injury Experience***, 1982.

APPENDIX A
GLOSSARY

(This is an abbreviated list of gas utility industry definitions. A complete list is contained in the *Glossary for the Gas Industry*).

Accident Frequency Rate: See Injury Frequency Rate, Disabling.

Accident Incident Rate: See Injury Incident Rate.

Accident Severity Rate: See Injury Severity Rate, Disabling.

Additions (To Utility Plant):

Gross Additions: Cost of construction, generally including overhead and allowance for funds used during construction (interest during construction), cost of land, land rights, and mineral interests, gas capitalized in underground storage, used facilities acquired, and the purchase cost of an acquired operating unit or system of utility plant. See Construction Expenditures.

Net Additions: Gross additions less retirements and adjustments of utility plant. It is the net change in utility plant between two dates.

Anthracite: A hard coal containing little volatile matter, low ash and generally having a heating value of 11,000-15,000 Btu/lb.

Associated Natural Gas: See Gas, Natural.

Associated Number of Customers: See Customers, Average Number of.

Average Revenue Per Unit of Gas Sales (By Class of Service): Revenue from the sale of gas to a class of service, exclusive of forfeited discounts and penalties, divided by the corresponding number of units sold. Units may be therms, Btu's or cubic feet.

Barrel (Oil): A volumetric unit of measurement equivalent to 42 U.S. Standard gallons.

Bituminous Coal: Ranking of soft coal generally having a heating value of 11,000-14,000 Btu/lb., high in volatile matter and ash.

Blue Gas: See Water Gas.

Boiler Fuel Gas: Natural gas used as a fuel for the generation of steam (or hot water).

Bottled Gas: In the industry, liquefied petroleum gas contained under moderate pressure in cylinders, sometimes referred to as bottles. Usually propane and/or butane.

British Thermal Unit (Btu): The quantity of heat that must be added to one pound of water to raise its temperature one degree Fahrenheit from 58.5 to 59.5 degrees Fahrenheit under standard pressure of 30 inches of mercury.

By-Products (Residuals): Secondary products which are obtained from the processing of a raw material and have commercial value. They may be the residues of the gas production process, such as coke, tar, and ammonia, or they may be the result of further processing of such residues, such as ammonium sulphate.

Capacity, Effective: The maximum load which a machine, apparatus, device, plant or system is capable of carrying under existing service conditions.

Carbon Black: Almost pure amorphous carbon consisting of extremely fine particles, usually produced from gaseous or liquid hydrocarbons by controlled combustion with a restricted air supply or by thermal decomposition.

Casinghead Gas: Unprocessed natural gas containing gasoline vapors produced from a reservoir containing oil.

City Gate (Town Border Station): See Gate Station.

Class of Service: Defines the type of customer. The common classes of service applied to ultimate consumers, and considerably more completely described in the A.G.A. publication "Definitions of a Gas Customer and Classes of Service for Industry Reporting Purposes" are:

1. **Residential Service**
   Covers service to customers for domestic purposes (single, multifamily or mobile homes, etc.). In residential service, the number of housing units within a structure determines the customer classification.
2. **Commercial Service**
   Covers service to customers engaged in wholesale or retail trade, agriculture, communications, finance, fisheries, forestry, government, insurance, real estate, transportation, etc., and to customers not directly involved in other classes of service.
3. **Industrial Service**
   Covers service to customers engaged primarily in a process which either involves the extraction of raw materials from the earth, or a change of raw or unfinished materials into another form or product.
4. **Other Services**
   Service to municipalities or divisions (agencies) of State or Federal Governments under special contracts or agreements or service classifications, which are applicable only to public authorities using gas for general or institutional purposes. (Exclude sales properly included under items 2 or 3 above, such as manufacturing arsenals or publicly-owned power systems).
5. **Sales for Resale** (Uniform System of Accounts, 483)
   Service to other utility companies, governmental agencies (municipal, county, state or federal), rural cooperatives, etc., for distribution and resale to ultimate customers. Service to other utilities for use by them and not for distribution and resale, is to be classified as residential, commercial, or industrial, depending upon the primary business or economic activity.

Coal Gas: Manufactured gas made by distillation or carbonization of coal in a closed coal gas retort, coke oven, or other vessel.

Combination Utility: Utility which supplies both gas and some other utility service (electricity, water, etc.). For purposes of A.G.A. statistics, a combination utility derives at least 5 percent but less than 95 percent of its total operating revenues from gas operations. See Appendix C for a list of combination companies.

Commercial Service: See Class of Service.

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Communities (Served): A community is a contiguous built-up area, incorporated or unincorporated, commonly recognized as a separate entity. Any incorporated area and its adjacent built-up unincorporated area may be counted as only one community.

Compressor Horsepower: See Horsepower, Compressor.

Compressor Station: Any permanent combination of facilities which supplies the energy to move gas at increased pressure from fields, in transmission lines or into storage. For reporting to A.G.A. include field (other than temporary) line, and storage compressor stations of producing and transmission companies; distribution companies should include underground storage compressor stations and stations used for transporting gas between local distribution systems but not booster or pumping stations used within a local distribution system.

Condensate: The liquid resulting when a vapor is subjected to cooling and/or pressure reduction. Also, liquid hydrocarbons condensed from gas and oil wells. Compare Liquids, under Gas, Natural.

Construction Expenditures: Cost of construction, including overheads and allowance for funds used during construction, for additions to, renewals, and replacements of plant facilities, but excluding the purchase cost of an acquired operating unit or system of utility plant, accounting transfers and adjustments to utility plant, and cost to remove plant facilities from service.

Conversion to Natural Gas: Changing the gas service to ultimate customers from a fuel other than natural gas to natural gas, including adjustment of consumers' appliances to perform satisfactorily with natural gas. Natural gas does not necessarily mean straight natural gas; stabilizing the heat content of the sendout gas by diluent gases or enriching gases is not considered to change the basic character of natural gas. For the purpose of uniform reporting a company should be considered a natural gas company when 95 percent of the system has been converted.

Cubic Foot: The most common unit of measurement of gas volume. It is the amount of gas required to fill a volume of one cubic foot under stated conditions of temperature, pressure, and water vapor.

Current Gas: See Storage, Underground.

Cushion Gas: See Base Gas under Storage, Underground.

Customer: An individual, firm or organization which purchases service at one location under one rate classification, contract, or rate schedule. If service is supplied at more than one location or under more than one rate schedule, each location and rate schedule shall be counted as a separate customer unless the consumption at the several locations is combined before billing and billed on one rate schedule.

Customers, Average Number of: The average number of customers is determined by summing the customers for each of the periods involved and dividing by the number of periods. See Customer.

Customers, End of Year: The number of customers at December (or the last month of a fiscal year) including all billing cycles. See Customers, Average Number of.

Degree Day, Heating: A measure of the coldness of the weather experienced, based on the extent to which the daily mean temperature falls below a reference temperature, usually 65°F. For example, on a day when the mean outdoor dry-bulb temperature is 35°F., there would be 30 degree days experienced. A daily mean temperature usually represents the sum of the high and low readings divided by two.

Demand: The rate at which gas is delivered to or by a system, part of a system, or a piece of equipment, expressed in cubic feet or therms or multiples thereof, for a designated period of time called the demand interval. Compare Load.

Design Day: A 24-hour period of demand which is used as a basis for planning gas capacity requirements.

Design Day Availability: The amount of each type of gas arranged to be available on the design day and the maximum combination of such supplies. (In the case of purchased natural gas, the maximum day allocation, maximum day contract quantity, or FERC authorization).

Design Day Temperature: The mean temperature assumed for the Design Day.

Dissolved Natural Gas: See Gas, Natural.

Distribution Company, Gas: Company which obtains the major portion of its gas operating revenues from the operation of a retail gas distribution system, and which operates no transmission system other than incidental connections within its own system or to the system of another company. For purposes of A.G.A. statistics, a distribution company obtains at least 95 percent of its gas operating revenues from sales to ultimate customers *and* classifies at least 95 percent of mains (other than service pipe) as distribution. Compare Integrated Company, Gas; Transmission Company, Gas. See Appendix C for a list of Distribution Companies.

Distribution Mains: See System Type.

Distribution System, Gas: See System Type.

Dry Natural Gas: See Gas, Natural.

Enriching: Increasing the heat content of a gas by mixing with it a gas of higher Btu content.

Exchange Gas: Gas that is received from (or delivered to) another party in exchange for gas delivered to (or received from) such other party.

Extraneous Gas: See Storage, Underground.

Field Pipeline: See System Type.

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Firm Service: Service offered to customers (regardless of Class of Services) under schedules or contracts which anticipate no interruptions. The period of service may be for only a specified part of the year as in Off-Peak Service. Certain firm service contracts may contain clauses which permit unexpected interruption in case the supply to residential customers is threatened during an emergency. Compare Interruptible Service; and Off-Peak Service.

Foreign Gas: See Storage, Underground.

Gallon: A unit of liquid measure. The U.S. gallon contains 231 cubic inches or 8.3359 pounds avoirdupois of distilled water at its maximum density and with the barometer at 30 inches.

Gas, Dry: See Gas, Natural.

Gas, Liquefied Petroleum (LPG): A gas containing certain specific hydrocarbons which are gaseous under normal atmospheric conditions, but can be liquefied under moderate pressure at normal temperatures. Propane and butane are the principal examples.

Gas, Manufactured: A gas obtained by destructive distillation of coal, or by the thermal decomposition of oil, or by the reaction of steam passing through a bed of heated coal or coke or catalyst beds. Examples are coal gases, coke oven gases,producer gas, blast furnace gas, blue (water) gas, carbureted water gas. Btu content varies widely.

Gas, Natural: A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

Associated: Free natural gas in immediate contact, but not in solution with crude oil in the reservoir.

Dissolved: Natural gas in solution in crude oil in the reservoir.

Dry: Gas whose water content has been reduced by a dehydration process. Gas containing little or no hydrocarbons commercially recoverable as liquid product. Specified small quantities of liquids are permitted by varying statutory definition in certain states.

Liquefied (LNG): Natural gas which has been liquefied by reducing its temperature to minus 260°F at atmospheric pressure. It remains a liquid at —116°F and 673 psig. In volume it occupies 1/600 of that of the vapor.

Liquids: Those liquid hydrocarbon mixtures which are gaseous at reservoir temperatures and pressures, but are recoverable by condensation or absorption. Natural gasoline and liquefied petroleum gases fall in this category.

Non-Associated: Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

Sour: Gas found in its natural state, containing such amount of compounds of sulphur as to make it impractical to use, without purifying, because of its corrosive effect on piping and equipment.

Substitute: A gas manufactured from carbonaceous material whose characteristics are substantially interchangeable with natural gas. The resultant gas is composed primarily of methane. At this writing, SNG feedstocks are the light hydrocarbons, propane, butane and the naphthas. Development is underway of processes for production from heavier feedstocks, coal, peat and solid wastes.

Sweet: Gas found in its natural state, containing such small amount of compounds of sulphur that it can be used without purifying, with no deleterious effect on piping and equipment.

Wet: Wet natural gas is unprocessed natural gas or partially processed natural gas, produced from strata containing condensable hydrocarbons. The term is subject to varying legal definitions as specified by certain state statutes.

Gas, Oil: A gas resulting from the thermal decomposition of petroleum oils, composed mainly of volatile hydrocarbons and hydrogen. The true heating value of oil gas may vary between 800 and 1600 Btu per cubic foot depending on the operating conditions and feedstock properties.

Gas, Substitute Natural (SNG): See Gas, Natural.

Gas Transported for Others: That volume of gas owned by another company received into and transported through any part of the transmission system under a transportation tariff.

Gate Station: Generally, a location at which gas changes ownership, from one party to another, neither of which is the ultimate consumer. It should be noted, however, that the gas may change from one system to another at this point without changing ownership. Also referred to as city gate station, town border station or delivery point.

Gathering Pipeline: See System Type.

Heating Value: The amount of heat produced by the complete combustion of a unit quantity of fuel. The gross or higher heating value is that which is obtained when all of the products of combustion are cooled to the temperature existing before combustion, the water vapor formed during combustion is condensed, and all the necessary corrections have been made. The net or lower heating value is obtained by subtracting the latent heat of vaporization of the water vapor formed by the combustion of the hydrogen in the fuel, from the gross or higher heating value.

Holder, Gas: A gas-tight receptacle or container in which gas is stored for future use. (1) at approximately constant pressure (low pressure containers) in which case the volume of the container changes; and (2) in containers of constant volume (usually high pressure containers) in which case the quantity of gas stored varies with the pressure.

Holding Company: A gas holding company is a corporation that is formed for the purpose of owning stock in other gas companies.

Horsepower, Compressor: The horsepower rating on the nameplate.

Horsepower, Mechanical: A unit of power numerically equal to a rate of 33,000 foot-pounds of work per minute or 550 foot-pounds per second.

Hydrocarbon: A chemical compound composed solely of hydrogen and carbon. The compounds having a small number of carbon and hydrogen atoms in their molecule are usually gaseous; those with a larger number of atoms are liquid and the compounds with the largest number of atoms are solid.

Industrial Service: See Class of Service.

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Injury Frequency Rate, Disabling: Number of disabling injuries per million man-hours worked. Such injuries include disabilities and fatalities arising out of and occurring during the course of employment. A disabling injury is one which renders the employee unable to return to work on one or more days after the injury.

Injury Incident Rate: Number of injuries per 100 full-time employees.

Injury Severity Rate, Disabling: Number of days lost due to disabling per million man-hours worked, including appropriate time charges according to a predetermined schedule for permanent disability cases and/or fatalities. Subsequent to 1976, Severity rate is average lost workdays per injury.

Integrated Company, Gas: A company which obtains a significant portion of its gas operating revenues from the operations of both a retail gas distribution system and gas transmission system. For purposes of A.G.A. statistics, an integrated company obtains less than 95 percent but more than 5 percent of its gas operating revenues from either its retail or transmission operations or does not meet the classification of mains established for distribution or transmission companies. Compare Distribution Company, Gas; Transmission Company, Gas. See Appendix C for a list of Integrated Companies.

Interruptible Service: Low priority service offered to customers under schedules or contracts which anticipate and permit interruption on short notice, generally in peak-load seasons, by reason of the claim of firm service customers and higher priority users. Unlike Off-Peak Service, gas is available at any time of the year if the supply is sufficient.

Line Pack, Gas Delivered from: That volume of gas delivered to the markets supplied by the net change in pressure in the regular system of mains, transmission and/or distribution. For example, the change in the content of a pipeline brought about by the deviation from steady flow condition.

Liquefied Natural Gas (LNG): See Gas, Natural.

Liquefied Petroleum Gas (LPG): See Gas, Liquefied Petroleum.

Load: The amount of gas delivered or required at any specified point or points on a system; load originates primarily at the gas consuming equipment of the customers. Also, to load a pressure regulator is to set the regulator to maintain a given pressure as the rate of gas flow through the regulator varies. Compare Demand.

Local Storage: See Storage, Local.

Mcf: 1000 cubic feet.

MMBtu: 1,000,000 Btu.

MMcf: 1,000,000 cubic feet.

Main, Gas: A distribution line that serves as a common source of supply for one or more than one gas service line.

Distribution Mains: See System Type.

Field and Gathering Pipeline: See System Type.

Transmission Pipeline: See System Type.

Manufactured Gas: See Gas, Manufactured.

Marketable Natural Gas: Raw gas from which certain hydrocarbons and non-hydrocarbon compounds have been removed by processing. Marketable natural gas is often referred to as pipeline gas, residue gas, or sales gas.

Maximum Day:

Allocation: See Design Day Availability.

Sendout: See Sendout, Maximum Day.

Minimum Day: See Sendout, Minimum Day.

Naphtha: Any of various volatile, often flammable liquid hydrocarbon mixtures used chiefly as solvents and diluents and as raw materials for conversion to gasoline and substitute natural gas (SNG).

Native Base Gas: See Storage, Underground.

Natural Gas: See Gas, Natural.

Natural Gas, Associated: See Gas, Natural.

Natural Gas, Dissolved: See Gas, Natural.

Natural Gas, Dry: See Gas, Natural.

Natural Gas, Liquefied: See Gas, Natural.

Natural Gas Liquids: See Gas, Natural.

Natural Gas, Non-Associated: See Gas, Natural.

Natural Gas Reserves: See Reserves.

Natural Gas, Sour: See Gas, Natural.

Natural Gas, Sweet: See Gas, Natural.

Natural Gas, Wet: See Gas, Natural.

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Natural Gasoline: Liquid removed from natural gas by absorption or refrigeration and containing hydrocarbons heavier than butane.

Off-Peak Service: Service made available on special schedules or contracts but only for a specified part of the year during the off-peak season. Compare Interruptible Service.

Oil Gas: See Gas, Oil.

Oil, Heavy: Heavy, thick and viscous oils. Usually refinery residuals commonly specified as grades 5 and 6.

Oil, Light: Generally, all oils lighter than residual fuel oils No. 5 and No. 6. Oils that have a low specific gravity, usually products of controlled distillation of crude oil but also including by-product benzol and toluol.

Peak Day: The 24-hour day period of greatest total gas sendout. Compare Design Day.

Peak Shaving: Supplying fuel gas for distribution system from an auxiliary source (of limited supply higher cost) during periods of maximum demand, when the primary source is not adequate.

Pipeline: All parts of those physical facilities through which gas is moved in transportation, including pipe, valves and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders and fabricated assemblies. See System Type.

Pressure, Absolute (psia): Pressure above that of a perfect vacuum. It is the sum of gauge pressure and atmospheric pressure.

Pressure, Gauge (psig): Pounds per square inch above atmospheric pressure.

Producer Gas (Also, Manufactured Gas): A combustible gas made in a furnace or apparatus by circulating air or a mixture of air and steam through a layer of incandescent material consisting chiefly of carbon monoxide, hydrogen and nitrogen.

Propane (C_3H_8): A gaseous member of the paraffin series of hydrocarbons, which when liquefied under pressure is one of the components of liquefied petroleum (LP) gas. Contains approximately 2,500 Btu per cubic foot (at 60°F and 30" mercury, and 91,740 Btu per gallon).

Recoverable Natural Gas Reserves: See Reserves, Recoverable Natural Gas.

Refinery Gas: See Gas, Oil.

Reforming: A chemical process using heat in presence of a catalyst to break down a substance into desired components, such as in the reforming of natural gas or light oils into lower Btu fuel gas.

Repressuring: Forcing gas, under pressure, into the oil reservoir in an attempt to increase the recovery of crude oil; also done with water.

Resale Service: See Class of Service, Sales for Resale.

Reserves: Refers to the bank of natural resources, such as natural gas, natural gas liquids, petroleum, coal, lignite, and energy available from water power, and solar and geothermal energy.

Estimated Potential Natural Gas: Refers to an estimate of the ultimate finding of natural gas in a specified area, whether or not presently considered proved or recoverable.

Estimated Proved Natural Gas: An estimated quantity of natural gas which analysis of geologic and engineering data demonstrates with reasonable certainty to be recoverable in the future from known oil and gas reservoirs, under existing economic and operating conditions. Reservoirs that have demonstrated the ability to produce by either actual production of conclusive formation test are considered proved.

Saturation, Appliance or Customer: The number of specified appliances, or users, divided by the basic units or total potential of the universe involved, i.e., Gas Heating Saturation related to customers is the total number of customers with space heating divided by the total number of customers. Saturation should not be used alone but should be associated with customers, families, households, population or other qualifying terms indicating the universe referred to. For industry statistics, saturation based on customers served is used.

Sendout, Gas: Total gas produced, purchased (including exchange gas receipts), or net withdrawn from underground storage within a specified time interval, measured at the point(s) of production and/or purchase, and/or withdrawal, adjusted for changes in local storage quantity. It comprises gas sales, exchange deliveries, gas used by company and unaccounted for gas. Expressed in various units such as therms, Btu's, cubic feet, etc.

Sendout, Maximum Day: The greatest total gas sendout occurring in a specified 24-hour period. Compare Design Day; Peak Day.

Sendout, Minimum Day: The smallest actual total gas sendout occurring in a specified 24-hour period.

Service (Service Line, Service Pipe): The pipe which carries gas from the main to the customer's meter. Compare Class of Service.

Shrinkage, Natural Gas: The reduction in volume of wet natural gas due to the extraction of some of its constituents, such as hydrocarbon products, hydrogen sulfide, carbon dioxide, nitrogen, helium, and water vapor.

Storage, Buried Pipe (Bottle-Type Holder): A system of storage in especially designed high pressure pipe sections or bottles capable of storing natural gas at pressures near or equal to the pressure of maximum super-compressibility. Not storage in ordinary steel pipe.

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Storage, Local: The storage facilities, other than underground storage, that are an integral part of a distribution system, i.e., on the distribution side of the city gate, whether for manufactured, mixed, natural, liquefied petroleum, or liquefied natural gases.

Storage Mains: Those mains used primarily for injection and withdrawal of gas to and from underground storage.

Storage, Underground: The utilization of subsurface facilities for storing gas which has been transferred from its original location for the primary purposes of load balancing. The facilities are usually natural geological reservoirs such as depleted oil or gas fields or waterbearing sands sealed on the top by an impermeable cap rock. The facilities also may be manmade or natural caverns.

Aquifer Storage: The storage of gas underground in porous and permeable rock stratum, the pore space of which was originally filled with water and in which the stored gas is confined by suitable structure, permeability barriers and hydrostatic water pressure.

Base Gas (Also called cushion gas): The total volume of gas which will maintain the required rate of delivery during an output cycle.

Current Gas: The total volume of gas in a storage reservoir which is in excess of the base gas. Also called Working Gas.

Extraneous Gas: See Stored Gas, this section.

Foreign Gas: See Stored Gas, this section.

Native Gas: The total volume of gas indigenous to the storage reservoir.

Storage Reservoir: That part of the storage zone having a defined limit of porosity and/or permeability which can effectively accept, retain, and deliver gas.

Storage Well: A cased bore hole, extending from the surface into the storage zone, which is used primarily for gas input and/or output purposes.

Stored Gas: Gas physically injected into a storage reservoir.

Ultimate Reservoir Capacity: The total estimated volume of gas that could be contained in storage reservoir when it is developed to the maximum design pressure.

Working Gas: Gas in an underground storage field that is available for market. May also be called Current Gas.

Straight Gas Utility: Company which derives the major portion of its total operating revenue from gas operations. For purposes of A.G.A. statistics, a straight gas utility derives at least 95 percent of its total operating revenues from gas operations.

Sub-bituminous Coal: Ranking of soft coal generally having a heating value of 8,300-13,000 Btu's/lb-high volatile matter and ash.

Substitute Natural Gas: See Gas, Natural.

System Type:

Distribution: Generally mains, services, and equipment which carry or control the supply of gas from the point of local supply to and including the sales meters. The system operates at various pressures as indicated below.

High Pressure: A system which operates at a pressure higher than the standard service pressure delivered to the customer; thus, a pressure regulator is required on each service to control pressure delivered to the customer. Sometimes this is referred to as medium pressure.

Low Pressure or Utilization Pressure: A system in which the gas pressure in the mains and service lines is substantially the same as that delivered to the customers' appliances; ordinarily a pressure regulator is not required on individual service lines.

Field and Gathering: A network of pipelines (mains) transporting natural gas from individual wells to compressor station, processing point, or main trunk pipeline.

Main: The network of distribution piping to which customers' service lines are attached. Generally large pipes are laid in principal streets with smaller laterals extending along side streets and connected at their ends to form a grid; sometimes laterals are brought to dead ends. Compare with Distribution, this section.

Transmission: Pipelines (Mains) installed for the purpose of transmitting gas from a source or sources of supply to one or more distribution centers, or to one or more large volume customers, or a pipeline installed to interconnect sources of supply. In typical cases transmission lines differ from gas mains in that they operate at higher pressures, are longer, and the distance between connections is greater.

Therm: A unit of heating value equivalent to 100,000 British thermal units (Btu).

Transmission Company, Gas: Company which obtains at least 95 per cent of its gas operating revenues from the operation of a gas transmission system and/or from main line sales to industrial customers. For purposes of A.G.A. statistics, a transmission company obtains at least 95 percent of its gas operating revenues from sales for resale and/or transportation of gas for others and/or main line sales to industrial customers *and* classifies at least 95 percent of mains (other than service pipe) as field and gathering, storage and/or transmission. Compare Distribution Company, Gas; Integrated Company, Gas. See Appendix C for a list of Transmission companies.

Transmission Pipeline: See System Type.

Transmission System: See System Type.

Ultimate Customer: The customer who purchases gas for consumption and not for resale purposes.

Ultimate Reservoir Capacity: See Storage, Underground.

Unaccounted for Gas: The difference between the total gas available from all sources and the total gas accounted for as sales, net interchange and company use. This difference includes leakage or other actual losses, discrepancies due to meter inaccuracies, variations of temperature and/or pressure, other variants, particularly due to measurements being made at different times, and in cycle billings, an amount of gas supply used but not billed as of the end of a period. Compare Sendout, Gas.

Underground Storage: See Storage, Underground.

Water Gas (Blue Gas): Made by passing steam over hot coke, or other carbonaceous material; it consists of carbon monoxide and hydrogen with varying amounts of carbon dioxide and nitrogen. It burns with a blue flame.

Well, Wildcat: An exploratory well being drilled in unproven territory, that is, in a horizon from which there is no production in the general area.

Wet Natural Gas: See Gas, Natural.

Working Gas: See Storage, Underground.

APPENDIX B
CONVERSION TABLE

The following are some frequently used units of measure and natural gas equivalents in British thermal units (Btu). Read "=" as "contains" between volumes and energy units. The national average Btu content per cubic foot is used. For state averages, see page 76.

1 Cubic Foot (cf)=0.02832 Cubic Meters=1,026 Btu

1 Therm=100,000 Btu≅25,200 Kilocalories≅100 Cubic Feet

1 Mcf=1,000 Cubic Feet=28.32 Cubic Meters=1,025,800 Btu

1 M Therm=100,000,000 Btu≅25,200,000 Kilocalories

1 MMcf=1,000,000 Cubic Feet=1,025,800,000 Btu

Conversion examples:
(1) To convert 2,325 MMcf to Btu:
    (2,325 MMcf) (1,025,800,000 Btu/MMcf)
        =2,384,985,000,000 Btu
        ≅2.385 trillion Btu
(2) To convert 5,000 trillion Btu to cubic feet:
    (5,000 trillion Btu) (1 cf/1,025.8 Btu)
        ≅4.874 trillion cf (Tcf)
        =4,874,244 MMcf
(3) To convert 22,150 million therms to Btu:
    (22,150 million therms) (100,000 Btu/therm)
        =2,215,000,000 million Btu
        =2,215 trillion Btu

For comparative purposes, Btu contents of various energy sources other than natural gas are shown below.*

Fuel oil (barrel)	
Distillate	5,825,000 Btu
Residual	6,287,000 Btu
Coal (short ton)	
Bituminous and lignite	21,800,000 Btu
Anthracite	22,100,000 Btu
Electricity (kilowatt-hour)	3,412 Btu
Natural gas liquids (barrel)	3,930,000 Btu

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*Energy Information Administration, Department of Energy, *Monthly Energy Review*, August 1983.

APPENDIX C
COMPANY LISTINGS

Shown below are 100 selected companies, 25 for each company type, as used in the financial and other sections of this publication. These lists are *not* meant to be *comprehensive*. Inclusion on this list does not imply individual company data may be released.

Distribution

Alabama Gas Corporation
Berkshire Gas Company, The
Boston Gas Company
Chattanooga Gas Company
Columbia Gas of Kentucky, Inc.
Columbia Gas of Ohio, Inc.
Columbia Gas of Pennsylvania, Inc.
Columbia Gas of West Virginia, Inc.
Elizabethtown Gas Company
ENTEX, Inc.
Gas Service Company, The
Great Falls Gas Company
Minnesota Gas Company
Mississippi Valley Gas Company
North Central Public Service Company
North Shore Gas Company
Northwest Natural Gas Company
Peoples Gas System, Inc.
Providence Gas Company
Richmond Gas Corp.
Southern Connecticut Gas Company, The
Washington Gas Light Company
Washington Natural Gas Company
Wisconsin Gas Company
Wisconsin Natural Gas Company

Transmission

Alabama Tennessee Natural Gas Co.
Algonquin Gas Transmission Company
Colorado Interstate Gas Company
Columbia Gas Transmission Corporation
Columbia Gulf Transmission Company
East Tennessee Natural Gas Company
El Paso Natural Gas Company
Houston Natural Gas Corporation
Michigan Wisconsin Pipe Line Company
Midwestern Gas Transmission Company
Natural Gas Pipeline Co. of America
Northwest Central Pipeline Company
Northwest Pipeline Corporation
Pacific Gas Transmission Company
Pacific Lighting Service Company
Panhandle Eastern Pipe Line Company
Southern Natural Gas Company
Texas Eastern Transmission Corporation
Texas Gas Transmission Corporation
Transco Companies, Inc.
Transok Pipe Line Company
Transwestern Pipeline Company
Trunkline Gas Company
United Gas Pipeline Company
Western Slope Gas Company

Integrated

Arkansas Louisiana Gas Company
Arkansas Oklahoma Gas Corporation
Arkansas Western Gas Company
Consolidated Gas Supply Corporation
Energas Company
Equitable Gas Company
Intermountain Gas Company
InterNorth Incorporated
Kokomo Gas & Fuel Company
Lone Star Gas Company
Michigan Consolidated Gas Company
Michigan Gas Utilities Company
Mountain Fuel Supply Company
National Fuel Gas Company
North Carolina Natural Gas Company
North Penn Gas Company
Oklahoma Natural Gas Company
Peoples Natural Gas Co., The
Piedmont Gas Company
South Jersey Gas Company
Southern California Gas Company
Southern Union Gas Company
Southwest Gas Corporation
United Cities Gas Company
Western Kentucky Gas Company

Combination

Arizona Public Service Company
Baltimore Gas and Electric Company
Central Illinois Light Company
Cincinnati Gas and Electric Company
Consolidated Edison Co. of NY Inc.
Consumers Power Company
Dayton Power & Light Company
Florida Public Utilities Company
Illinois Power Company
Iowa Electric Light & Power Company
Iowa-Illinois Gas & Electric Company
Kansas Power & Light Company
Long Island Lighting Company
Louisville Gas & Electric Company
Montana-Dakota Utilities Company
Montana Power Company
Niagara-Mohawk Power Corporation
Northern Indiana Public Service Company
Pacific Gas & Electric Company
Philadelphia Electric Company
Public Service Co. of Colorado
Public Service Electric & Gas Company
San Diego Gas & Electric Company
Virginia Electric & Power Company
Wisconsin Public Service Corporation

APPENDIX D
GAS REQUIREMENTS COMMITTEE, NATURAL GAS CONSUMPTION

The Gas Requirements Committee (GRC) is a subcommittee of the Gas Demand Committee, a board-level committee of the American Gas Association. The GRC has been publishing reports on gas consumption since 1964, and is considered one of the three major sources of comprehensive data on natural gas consumption. The Energy Information Agency (EIA) within the U.S. Department of Energy and the American Gas Association are the other two. The Statistics and Related Economics Committee of the A.G.A. has decided to include the GRC data on natural gas consumption for the first time in this edition as part of the effort to continually improve the usefulness of the data provided in *Gas Facts*.

Comparison of consumption figures published by the three above-mentioned sources for any given year would result in some discrepancies. Certainly one reasonable explanation is that the three groups use different methods in the collection and compilation of natural gas consumption data. The major differences are caused by varying definitions, sample sizes, and points of measurement.

The GRC measure of consumption is defined as adding together the end-use consumption of all gas users including company use, unaccounted for gas and field use on a national basis only. The EIA measure of consumption is defined as the sum of deliveries to consumers, lease and plant fuel, and pipeline fuel. The A.G.A. measure of consumption is restricted to sales to consumers that are made by gas utility companies *only* and, therefore, is a subset of total United States gas consumption.

It is not the intention of the Statistics and Related Economics Committee to reconcile the differences among the reported consumption data. Rather, the reader should be aware that three sources of data exist. If the reader wishes to further analyze the GRC or EIA consumption data, it is reported in the GRC *Actual Gas Consumption in the United States* reports or the EIA *Natural Gas Annual* reports.

The subsequent pages excerpt the following information from GRC publications: United States gas consumption by state, region and class of service—1982, total commercial and industrial consumption by standard industrial classification—1982, and United States gas consumption by class of service, 1972-1982.

GAS FACTS

1982

UNITED STATES GAS CONSUMPTION BY STATE, REGION & CLASS

(MMCF AT 1000 BTU PER CUBIC FOOT)

	Region and State	Firm	
		Residential	Commercial
(1)	**United States Total**		
(2)	**Field Use**		
(3)	**Total Excluding Field Use**	[illegible]	[illegible]
(4)	**1. New England**	[illegible]	[illegible]
(5)	Connecticut	[illegible]	[illegible]
(6)	Maine	[illegible]	[illegible]
(7)	Massachusetts	[illegible]	[illegible]
(8)	New Hampshire	[illegible]	[illegible]
(9)	Rhode Island	[illegible]	[illegible]
(10)	Vermont	[illegible]	[illegible]
(11)	**2. Appalachian**	[illegible]	[illegible]
(12)	Delaware	[illegible]	[illegible]
(13)	District of Columbia	[illegible]	[illegible]
(14)	Kentucky	[illegible]	[illegible]
(15)	Maryland	[illegible]	[illegible]
(16)	New Jersey	[illegible]	[illegible]
(17)	New York	[illegible]	[illegible]
(18)	Ohio	[illegible]	[illegible]
(19)	Pennsylvania	[illegible]	[illegible]
(20)	Virginia	[illegible]	[illegible]
(21)	West Virginia	[illegible]	[illegible]
(22)	**3. Southeast**	[illegible]	[illegible]
(23)	Alabama	[illegible]	[illegible]
(24)	Florida	[illegible]	[illegible]
(25)	Georgia	[illegible]	[illegible]
(26)	North Carolina	[illegible]	[illegible]
(27)	South Carolina	[illegible]	[illegible]
(28)	Tennessee	[illegible]	[illegible]
(29)	**4. Great Lakes**	[illegible]	[illegible]
(30)	Illinois	[illegible]	[illegible]
(31)	Indiana	[illegible]	[illegible]
(32)	Michigan	[illegible]	[illegible]
(33)	Wisconsin	[illegible]	[illegible]
(34)	**5. Northern Plains**	[illegible]	[illegible]
(35)	Iowa	[illegible]	[illegible]
(36)	Minnesota	[illegible]	[illegible]
(37)	Nebraska	[illegible]	[illegible]
(38)	North Dakota	[illegible]	[illegible]
(39)	South Dakota	[illegible]	[illegible]
(40)	**6. Mid-Continent**	[illegible]	[illegible]
(41)	Kansas	[illegible]	[illegible]
(42)	Missouri	[illegible]	[illegible]
(43)	Oklahoma	[illegible]	[illegible]
(44)	**7. Gulf Coast**	[illegible]	[illegible]
(45)	Arkansas	[illegible]	[illegible]
(46)	Louisiana	[illegible]	[illegible]
(47)	Mississippi	[illegible]	[illegible]
(48)	Texas	[illegible]	[illegible]
(49)	**8. Rocky Mountain**	[illegible]	[illegible]
(50)	Colorado	[illegible]	[illegible]
(51)	Montana	[illegible]	[illegible]
(52)	Utah	[illegible]	[illegible]
(53)	Wyoming	[illegible]	[illegible]
(54)	**9. Pacific Southwest**	[illegible]	[illegible]
(55)	Arizona	[illegible]	[illegible]
(56)	California	[illegible]	[illegible]
(57)	Nevada	[illegible]	[illegible]
(58)	New Mexico	[illegible]	[illegible]
(59)	**10. Pacific Northwest**	[illegible]	[illegible]
(60)	Idaho	[illegible]	[illegible]
(61)	Oregon	[illegible]	[illegible]
(62)	Washington	[illegible]	[illegible]
(63)	**11. Pacific**	[illegible]	[illegible]
(64)	Alaska	[illegible]	[illegible]
(65)	Hawaii	[illegible]	[illegible]

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*Firm industrial for Alaska estimated by using actual 1981 data from Energy Information Administration

APPENDIX D

1982 (Continued)

UNITED STATES GAS CONSUMPTION BY STATE, REGION & CLASS OF SERVICE

(MMCF AT 1000 BTU PER CUBIC FOOT)

Electric Utilities for Power Generation		Interruptible				
Firm	Interruptible	Commercial	Industrial	Other	Total Consumption	
					18,511,720	**(1)**
					991,000	**(2)**
1,991,332	**1,346,773**	**273,784**	**1,674,224**	**1,146,604**	**17,520,720**	**(3)**
796	**15,702**	**12,890**	**32,044**	**12,564**	**333,963**	**(4)**
—	—	6,081	8,939	3,018	81,365	(5)
—	—	—	—	7	2,624	(6)
—	15,594	6,065	20,274	8,330	206,153	(7)
—	—	—	139	246	10,573	(8)
796	—	287	1,055	810	28,683	(9)
—	108	457	1,637	153	4,565	(10)
8,174	**230,805**	**45,740**	**137,010**	**225,141**	**3,418,995**	**(11)**
3,836	—	221	2,528	60	21,621	(12)
—	—	4,072	94	782	29,627	(13)
1,366	272	355	15,983	27,362	182,566	(14)
225	104	7,258	19,306	5,542	160,031	(15)
—	65,778	6,554	36,995	11,538	389,249	(16)
981	161,654	17,723	16,380	35,322	811,714	(17)
904	77	296	5,896	44,970	847,713	(18)
862	267	2,058	30,852	62,505	711,103	(19)
—	2,513	7,116	7,207	12,963	140,528	(20)
—	140	87	1,769	24,097	124,843	(21)
74,693	**113,939**	**34,601**	**320,032**	**74,301**	**1,297,408**	**(22)**
1,503	46	3,048	63,213	17,973	213,154	(23)
72,978	111,784	7,842	53,643	5,007	313,358	(24)
—	1,553	14,620	106,934	16,947	312,171	(25)
210	6	1,340	17,152	8,331	147,040	(26)
2	549	4,474	34,254	5,960	103,868	(27)
—	1	3,280	44,836	20,083	207,817	(28)
19,024	**11,275**	**12,068**	**157,739**	**72,203**	**2,605,504**	**(29)**
11,007	1,302	471	37,041	28,213	1,060,819	(30)
2,350	—	957	15,938	13,789	479,029	(31)
5,643	5,551	1,852	36,446	26,969	752,466	(32)
24	4,422	8,788	68,314	3,232	313,190	(33)
1,495	**6,602**	**70,786**	**77,883**	**25,735**	**726,868**	**(34)**
1,495	1,919	14,248	33,560	12,721	295,173	(35)
—	771	46,397	21,499	7,687	253,129	(36)
—	3,890	5,467	17,908	2,858	128,023	(37)
—	20	3,337	1,233	2,304	26,697	(38)
—	2	1,337	3,683	165	23,846	(39)
285,901	**37,925**	**37,029**	**241,520**	**96,086**	**1,250,183**	**(40)**
19,268	27,777	18,537	99,991	51,392	355,006	(41)
3	5,432	15,315	40,108	10,018	288,660	(42)
266,630	4,716	3,177	101,421	34,676	606,517	(43)
1,496,047	**351,928**	**4,751**	**375,145**	**420,300**	**4,982,489**	**(44)**
28,362	1,756	4,698	11,134	15,289	225,111	(45)
356,960	66,067	53	119,117	165,328	1,368,106	(46)
48,426	—	—	948	39,052	218,869	(47)
1,062,299	284,105	—	243,946	200,631	3,170,403	(48)
1,979	**6,991**	**19,544**	**60,845**	**18,809**	**413,278**	**(49)**
1,941	4,413	13,222	17,425	9,583	209,118	(50)
38	60	360	10,622	3,356	51,050	(51)
—	2,518	5,403	30,116	4,945	115,702	(52)
—	—	559	2,682	925	37,408	(53)
97,125	**554,288**	**24,142**	**231,164**	**195,623**	**2,163,854**	**(54)**
33,420	—	—	—	22,216	145,223	(55)
16,145	554,288	24,142	231,164	87,574	1,787,989	(56)
16,425	—	—	—	1,413	49,194	(57)
31,135	—	—	—	84,420	181,448	(58)
98	**54**	**10,019**	**40,842**	**2,433**	**221,041**	**(59)**
—	—	—	33	(145)	39,059	(60)
—	28	600	15,773	1,094	69,062	(61)
98	26	9,419	25,036	1,484	112,920	(62)
6,500	**17,264**	**2,211**	—	**3,409**	**107,137**	**(63)**
6,000	17,264	2,095	—	3,295	103,800	(64)
—	—	116	—	114	3,337	(65)

1982
TOTAL COMMERCIAL AND INDUSTRIAL CONSUMPTION BY STANDARD INDUSTRIAL CLASSIFICATION

(MMCF AT 1000 BTU PER CUBIC FOOT)

		Region[a]			
Group	Description	1	2	3	4
01-09	Agriculture, Forestry & Fishing	161	5,240	1,377	6,950
10-14	Mining	4	866	3,801	3,885
15-17	Construction	598	4,447	680	3,423
20	Food & Kindred Products	5,668	55,640	34,981	100,206
21	Tobacco Manufactures	203	1,098	1,098	122
22	Textile Mill Products	2,339	11,461	64,730	1,633
23	Apparel & Other Textile Products	186	3,763	6,931	758
24	Lumber & Wood Products	85	2,853	5,984	3,203
25	Furniture & Fixtures	64	2,434	1,271	4,145
26	Paper & Allied Products	3,632	37,269	80,810	50,141
27	Printing & Publishing	390	4,719	1,174	8,349
28	Chemicals & Allied Products	5,026	120,639	107,990	85,220
29	Petroleum & Coal Products	168	36,517	16,417	28,729
30	Rubber & Misc. Plastic Products	1,304	17,162	11,172	12,209
31	Leather & Leather Products	131	1,189	592	1,583
32	Stone, Clay, Glass & Concrete Products	4,596	93,021	64,694	40,237
331-332	Primary Iron & Steel	1,061	211,455	18,309	196,706
333-339	Primary Non-ferrous Metals	2,187	48,155	20,847	31,579
34	Fabricated Metal Products	5,259	44,832	10,900	37,544
35	Machinery, except Electrical	4,081	22,900	3,548	39,041
36	Electric & Electronic Equipment	3,190	24,066	5,277	18,031
37	Transportation Equipment	784	23,700	6,143	57,915
38	Instruments & Related Products	1,676	4,793	1,728	2,117
39	Other Manufacturing	2,054	39,924	6,096	25,624
40-48	Transportation	1,755	18,716	4,091	11,372
50-51	Wholesale Trade	1,325	14,880	6,467	14,192
52-59	Retail Trade	4,970	39,746	9,046	34,026
58	Restaurants	4,657	26,552	12,982	20,737
60-67	Finance & Insurance	1,097	9,195	981	4,926
65	Real Estate (Apartments)	11,853	79,901	9,798	35,704
70	Hotels	1,323	12,444	4,566	10,867
71-79	Services	4,077	30,815	9,916	50,594
80	Hospitals	6,170	49,605	21,309	45,537
82	Education (Schools)	5,090	59,182	17,994	77,516
81,83,84	Social Service	600	3,889	1,030	2,814
86	Membership Organizations	1,201	19,638	2,690	17,370
91-97	Public Administration	1,881	22,704	14,453	21,789
99	Non-classifiable	488	12,148	483	17,516
	Not Classified or Unreported	63,395	334,403	181,093	252,503
	Total Commercial & Industrial	**154,729**	**1,551,961**	**773,449**	**1,376,813**

a. For region definition see previous table on page 210.

1982 (Continued)
TOTAL COMMERCIAL AND INDUSTRIAL CONSUMPTION BY STANDARD INDUSTRIAL CLASSIFICATION

(MMCF AT 1000 BTU PER CUBIC FOOT)

Region[a]								
5	6	7	8	9	10	11	Total	Group
9,715	8,199	10,054	2,434	16,555	829	—	61,514	01-09
433	20,060	44,752	8,256	16,883	4,389	—	103,129	10-14
1,470	693	202	1,161	2,153	228	—	15,055	15-17
29,727	17,587	32,826	8,518	49,008	16,993	—	351,154	20
15	—	—	—	—	—	—	2,536	21
164	268	1,132	33	3,210	112	—	85,082	22
125	58	570	49	728	12	—	13,180	23
5,250	6,709	5,534	253	1,619	4,672	—	36,162	24
401	71	678	35	903	30	—	10,032	25
6,504	2,961	78,630	3,373	15,343	20,827	—	299,490	26
586	180	399	150	1,616	93	—	17,656	27
26,638	116,436	824,963	10,388	32,846	13,353	—	1,343,499	28
1,646	43,837	312,284	19,105	82,153	7,114	13,337	561,307	29
691	3,426	11,891	1,253	2,695	89	—	61,892	30
267	135	2,691	204	310	—	—	7,102	31
4,184	27,343	36,434	4,990	35,532	2,045	—	313,076	32
1,093	900	33,655	18,797	9,161	1,483	—	492,620	331-332
5,108	4,821	72,969	8,618	33,909	5,264	—	233,457	333-339
2,500	2,964	10,394	706	9,320	415	—	124,834	34
2,870	1,216	4,442	1,044	3,306	641	60	83,149	35
1,264	2,631	3,703	631	4,116	145	—	63,054	36
1,196	5,091	5,106	1,004	6,883	184	—	108,006	37
483	72	361	1,320	763	435	—	13,748	38
1,937	8,845	5,973	117	8,165	2,495	—	101,230	39
3,772	3,018	15,051	7,026	7,059	1,441	—	73,301	40-48
2,915	718	102	1,748	6,743	120	—	49,210	50-51
17,143	2,821	79	4,419	11,931	474	—	124,655	52-59
2,864	1,874	16	2,493	24,064	328	—	96,567	58
1,193	336	312	664	2,997	77	—	21,778	60-67
7,799	1,335	4,341	17,619	10,128	125	—	178,603	65
1,636	1,310	793	2,310	12,276	251	—	47,776	70
3,866	604	1,116	4,396	25,678	445	—	131,507	71-79
6,483	9,530	6,409	4,624	25,514	1,879	—	177,060	80
10,120	8,716	9,688	9,120	30,084	2,327	—	229,837	82
748	97	367	471	3,612	286	—	13,914	81,83,84
3,179	155	48	1,694	5,767	179	—	51,921	86
3,271	7,427	9,981	4,956	20,793	1,150	—	108,405	91-97
2,158	331	432	1,234	1,054	5,621	—	41,465	99
254,481	216,434	807,221	64,931	162,501	64,674	56,379	2,458,015	
425,895	**529,209**	**2,355,599**	**220,144**	**687,378**	**161,225**	**69,776**	**8,306,178**	

APPENDIX D

UNITED STATES GAS CONSUMPTION BY CLASS OF SERVICE, 1972-1982

(MMCF AT 1000 BTU PER CUBIC FOOT)

	Firm			Electric Utilities for Power Generation		Interruptible					
Year	Residential	Commercial	Industrial	Firm	Interruptible	Commercial	Industrial	Other	Total Excluding Field Use	Field Use	Total Consumption
1972	5,173,259	2,239,297	6,256,996	2,332,958	1,827,477	a	2,884,426	1,697,654	22,412,067	1,907,000	24,319,067
1973	4,982,530	2,248,382	6,215,564	2,104,525	1,546,797	a	2,778,399	1,451,075	21,327,272	1,964,000	23,291,272
1974	4,887,109	2,215,152	6,445,394	2,186,974	1,254,431	295,002	2,258,365	1,364,949	20,907,376	1,859,000	22,766,376
1975	4,981,448	2,415,713	5,116,697	2,025,981	1,024,480	271,223	1,935,675	1,173,759	18,944,976	1,759,000	20,703,976
1976	5,090,126	2,536,585	5,334,144	2,106,027	956,247	270,359	1,846,102	1,243,448	19,383,038	1,723,000	21,106,038
1977	4,909,373	2,463,206	5,019,752	2,017,471	998,913	222,735	1,651,440	1,167,724	18,450,614	1,694,000	20,144,614
1978[b]	5,132,207	2,746,861	6,486,614	2,926,048	b	b	b	1,304,150	18,595,880	1,660,000	20,255,880
1979[b]	5,144,003	2,770,674	6,973,202	3,274,967	b	b	b	1,233,424	19,396,270	1,710,000	21,106,270
1980	4,868,509	2,363,209	5,167,578	2,161,516	1,430,447	247,205	1,967,741	1,354,737	19,560,942	1,491,000	21,051,942
1981	4,654,258	2,240,388	5,026,609	2,142,754	1,632,357	249,760	2,001,333	1,350,019	19,297,478	1,047,000	20,344,478
1982	4,729,833	2,316,418	4,041,752	1,991,332	1,346,773	273,784	1,674,224	1,146,604	17,520,720	991,000	18,511,720

a. Included in industrial interruptible.

b. In 1978 and 1979, firm and interruptible service were not measured individually; therefore, all consumption is included under firm for each class of service.

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